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Report of the Secretary of War; being part of the message and documents communicated to the two Houses of Congress at the beginning of the second session of the Forty-sixth Congress : Report of the Secretary of War, 1879

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REPORT

OF THE

SECRETARY OF WAR;

BEING PART OF

THE MESSAGE AND DOCUMENTS

COMMUNICATED TO THE

TWO HOUSES OF CONGRESS

AT THE

BEGINNING OF THE SECOND SESSION OF THE FORTY-SIXTH CONGRESS.

IN FOUR VOLUMES.

VOLUME I.

WASHINGTON:
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1879.

REPORT
OF
THE SECRETARY OF WAR.

WAR DEPARTMENT, *November 19, 1879.*

MR. PRESIDENT: I have the honor, in accordance with the requirement of the statute, to submit the annual report of the operations of this department for the past year.

THE ARMY.

The report of the General of the Army gives in detail the strength of the several branches of the service, and shows the aggregate, as exhibited in the latest returns, to be 2,127 officers, 24,262 men, and 388 officers retired. A portion of this force, however, being necessarily employed in detached or special service, constitutes no part of the force available for actual operations in the field.

The enlisted men of the Signal Corps, Engineer and Ordnance Corps, Ordnance Sergeants, Commissary Sergeants and Hospital Stewards, the prison guard at Fort Leavenworth, and the recruiting detachments amount in the aggregate to 3,463 men, and are employed in the performance of important duties connected with the military establishments, but these duties bring but few of them into active service in the field. The statute now authorizes a total force of twenty-five thousand men, not including the Signal Corps, which has by law four hundred and fifty-six men. I join most heartily with the General of the Army in recommending that the effective force of the Army available for field duty be raised to twenty-five thousand men, exclusive of the above-named detachments.

I have had occasion in previous reports to express the opinion that a due regard for the safety of settlers upon our frontiers, the guarding and preservation of our vast and valuable military stores and property, the proper management and control of the Indian tribes, and the defense of our extensive border lines, would justify, if they do not imperatively require, a much greater increase of the effective force of the Army than is here suggested. Certainly Congress should not hesitate to authorize the enlistment of the full number of 25,000 men for the line of the Army, exclusive of the number required for detached duty. It is undeniable that most if not all the disasters attending Indian hostilities are the result of inadequacy of force on our part. The wily Indian seldom, if ever, strikes a powerful foe. His policy is to take

advantage of our weak points on the frontier to inflict heavy losses upon us. The records of this department show that since the close of the war of the rebellion fifty-five officers of the Army have been killed in Indian warfare, and a corresponding number wounded, besides a proportionate number of men killed and wounded. Among the list of killed will be found the names of such valuable officers as Canby, Custer, and Thornburgh.

INDIAN HOSTILITIES.

It was hoped that the last year would prove one of peace with the Indians, but this hope was disappointed by the hostilities of the Utes in Colorado and the Apaches in New Mexico, a full and particular account of which will be found in the report of the General of the Army. In the efforts for the suppression of these outbreaks the military authorities, including the officers and men engaged, have acted with great promptness and vigor. The conduct of Captain Paine, Company F, Fifth Cavalry, and of Captain Dodge, Company D, Ninth Cavalry, as shown in official reports, is worthy of high commendation.

The massacre of Agent Meeker and others at White River Agency; the killing of Lieutenant Weir, of the ordnance, a gallant young officer who had volunteered for duty with the expedition, and the fall of the lamented and gallant Major Thornburgh, and others of his command, are events greatly to be deplored; and in my judgment the government should persist in its demand for the surrender for trial and punishment of all Indians guilty of murder in connection with these affairs, and should visit upon the guilty the full penalty of their offenses. If Indians, who subsist upon the bounty of the government, can commit with impunity crimes such as these, and if the United States fails to punish them, the savages will find in these facts encouragement to repeat the outrages when opportunity and inclination shall prompt them to do so, while swift punishment in the present cases will teach these people, who understand little besides force, a wholesome lesson.

ABANDONED MILITARY POSTS.

This department has charge of a large number of abandoned military reservations. They have been rendered useless for military purposes by the advance of civilization and settlement, and are now simply a source of expense to the United States. Some of them are surrounded by settlements, and are, therefore, much more valuable than ordinary public lands. In some instances it would be more economical to sell the land, with the improvements, to the highest bidder; in other cases it might be desirable to sell the buildings, with a view to their removal, and then turn the land over to the Interior Department, to become a part of the public domain. In still other cases it might be desirable to remove the material now in the improvements to other posts which are still needed for military purposes, and where it could be utilized. It is certainly very desirable that authority be conferred upon the Secretary of War, in some manner consistent with the interest of the government, to dis-

pose of all the posts and reservations which are not now in use and not likely to be required hereafter for military purposes. I have, during the past two years, caused a number of these posts to be inspected, and reports, giving full particulars, are on file in the department, and can be furnished to Congress at any time when required. I recommend that Congress be asked to provide by law for the disposition of this property. In case of a sale, the law should provide for a careful appraisement and for ample safeguards against a sacrifice of the property. Attention is invited to the remarks of the General of the Army upon this subject, to be found in his annual report herewith.

EXPENDITURES, APPROPRIATIONS, AND ESTIMATES.

The actual expenditures of the War Department for the fiscal year ending June 30, 1879, were \$42,653,723.62.

The appropriations available for the service of the fiscal year ending June 30, 1878, aggregated \$45,076,702.95; those for 1879 were \$53,016,040.96, and those for the current fiscal year amounted to \$46,269,821.94.

The estimates for the service of the fiscal year ending June 30, 1881, are \$40,380,428.93, to which amount they have been reduced from \$54,306,643.14, for which they were originally submitted to me. The reductions, in detail, may be found in the Book of Estimates, except in cases where unfavorable considerations have caused entire items to be finally omitted, and this exception applies principally to the

Civil establishment.—This establishment includes salaries and contingent expenses of the permanent departmental offices, and these estimates amount to \$1,159,460. The force of the War Department and its bureaus was reorganized by an act of June 20, 1874, and placed on a basis, as to numbers, grades, and compensation, which seemed to be satisfactory in the transaction of public business, until that basis was materially changed by legislative reduction in 1876, and was thereafter considered by Congress as subject to further decrease. The officials responsible to the public for the prompt dispatch of business through the employment of this reduced force annually showed cause in their reports for fiscal years from 1877 to 1880 for a renewal of the number of employes on the basis of 1874, and they made their estimates accordingly.

In my last annual report I submitted my views in regard to the necessity for increased force, which necessity continues to exist. Congress having acted unfavorably to an increase, however, I have deemed it proper to restrict these estimates to the number of employes authorized by appropriations for the current fiscal year. In this connection I have to suggest that the clerical force allowed to this office is not sufficient to satisfactorily dispatch current business, and that some of the chiefs of bureaus report that the force estimated for by them, on the basis of appropriations, is not adequate to the clerical needs of their offices.

The military establishment is estimated for on the basis of 25,450 enlisted men, the Signal Corps being by law allowed 450 men not to be

included in the 25,000. Under this head the estimates for the current fiscal year were \$29,335,727.33; the appropriations to meet the same were \$26,978,847.33, and the present estimates are for \$29,319,794.78. The principal differences between the estimates and the appropriations are on account of the item for pay, &c., of the Army, which is made up of estimates based on arithmetical calculations, and on items for the Ordnance Department which relate to timely provisions for the public defense in any emergency that may arise.

The public works.—The estimates, as reduced, are \$7,557,034.42, which amount is \$396,043.34 less than the estimates for 1879, \$113,946.88 less than those for 1880, and \$3,237,460.19 less than the appropriations for 1880, which were \$10,794,494.61. The views expressed under this head in my last annual report are here renewed, as best explanatory to the reduction of these estimates, which, as transmitted to me, aggregated \$20,182,873.42. About seventeen-twentieths of this amount are for “the continuation of works once commenced under legal authority, and remaining unfinished for want of funds,” and are annually submitted to Congress in accordance with law. (See sec. 231 R. S.)

The amounts appropriated for “fortifications and other works of defense” during the last five years have been insufficient to preserve all such government property from waste. This fact *per se* accounts for the annual increase in the amounts suggested for these works by the Chief of Engineers. Under this title the estimates for 1880, which were \$3,188,400, were reduced by me to \$1,000,000, and were favorably considered in Congressional appropriations for \$150,000; and the present estimates, rendered in detail, for \$4,028,500, have been reduced in the aggregate to \$1,000,000, which amount could be wisely and properly applied to the preservation and care of these works.

The estimates for rivers and harbors rendered by items for \$14,326,650, I have reduced in the aggregate to \$5,015,000, which was the total of the amount appropriated for the fiscal year 1877, and which seems to have been sufficient for the promotion of the general commerce of the country during that time. In relation to the comparative differences between the amounts of estimates and appropriations, it seems to me that some embarrassments must always attend the discretionary preparation and consideration of these estimates, owing to the uncertainty which, perchance, must mark their future credit by Congress. Last year, for example, my estimates for fortifications, as has already been stated, were \$1,000,000, and the appropriations granted therefor were only \$150,000, while at the same time, the reverse of this principle or policy appeared, when on my estimates for rivers and harbors for \$5,015,000, the appropriations granted therefor were \$9,752,494.61.

The miscellaneous estimates are \$2,344,139.73, of which amount about one-fourth appertains annually to the departmental collection and diffusion of valuable official *data*, such as the observation and report of storms through the Signal Service, the compilation and publication of official records of the war of the rebellion, and the like; and the re-

maining portion (which is over one million five hundred thousand dollars) is made up of items wholly relative to certain moral obligations of the government, such as the support of the National Home for Disabled Volunteer Soldiers, the furnishing of artificial limbs and other appliances to disabled soldiers, and the care of National Cemeteries.

I have not reduced any of the estimates under this head below the amounts for which they were originally submitted to me.

The aggregate of the estimates for the next fiscal year is \$2,273,294.69 less than the amount of actual expenditures of 1879; \$5,889,393.01 less than the appropriations available for the service of the fiscal year 1880, and is \$7,289.40 less than the estimates for 1880, which were for a "less sum of money than any annual estimates rendered to Congress from this department for a period of at least eleven years," as shown in my last annual report.

UNION AND CONFEDERATE WAR RECORDS.

The preparation of these records for publication is progressing satisfactorily under the efficient management of Col. R. N. Scott, of the Army.

The War Department agent for collecting such Confederate records as may be placed, by gift or loan, at the disposal of the government, has been very successful.

The Southern Historical Society has placed its collection at the service of the department, and valuable documents have been furnished by Generals Johnston, Pemberton, Wheeler, Jones, Ruggles, and others. In fact, there is a general disposition on the part of ex-Confederate officers to contribute material to the official History of the War.

In a few instances records of the Confederate armies are held for sale, but Colonel Scott renews his objection to the purchase of such documents; and in his views I concur.

Attention is invited to the fact that as yet no provision has been made for publishing any of the records. An appropriation for the composition, stereotyping, and printing of proof copies of the records for 1861 is recommended.

Extra compensation is asked for two of the Adjutant-General's clerks specially connected with the work of the War Records Office; and I recommend that this be granted.

ADJUTANT-GENERAL'S DEPARTMENT.

The Adjutant-General asks for an increase of his clerical force, the work in his office having fallen so far behindhand that additional clerks will be necessary to bring it up. This increase of business is largely owing to the passage of the act of Congress granting arrears of pensions. I invite attention to the remarks of the Adjutant-General upon this subject, and to his recommendation, which is concurred in.

The work of codifying the Army Regulations and General Orders, under the provisions of section 2 of the act of June 23, 1879, was con-

fided by me to the Adjutant-General, and has been prosecuted without intermission since the passage of the act, and is in an advanced state of completion.

The existing system of recruiting continues to be productive of good results. Recent inspections show that the character of the men composing the rank and file is high.

BUREAU OF MILITARY JUSTICE.

The Judge-Advocate-General reports, among other items of business, the receipt and review at his bureau of 1,673 records of general courts-martial, and the furnishing to the Secretary of War of 898 reports and opinions on questions of law.

He reports the convictions for desertion as increased during the past year by 24, and expresses the opinion that the two principal or most conspicuous causes of desertion in the Army are: 1. Drunkenness, or rather indulgence in intoxicating liquors; 2. Oppressive or injudicious treatment of soldiers by non-commissioned officers, and especially first sergeants of companies invested with an excess of authority.

I concur with the Judge-Advocate-General in the recommendation that Congress, in making appropriations for his branch of the service, will appropriate a reasonable sum for the purchase of suitable law libraries for the use of the judge-advocates at the headquarters of the military geographical departments, the same being urgently needed.

He also recommends that the legislation heretofore initiated in the Senate for making *gambling* in the Army a punishable offense be renewed, and the bill heretofore proposed for the purpose, or some similar provision, be enacted by Congress.

He further indicates defects in the 72d and 104th Articles of War as embarrassing to the administration of military justice, and recommends that they be removed by legislation.

The Judge-Advocate-General renews his former recommendations for some declaratory legislation in reference to the 103d Article of War, the military statute of limitation. In my last annual report I invited attention to this important topic, and expressed the hope that an existing diversity of opinion and practice might be settled by some judicious legislation. The 103d Article of War provides that no person shall be liable to be tried and punished by a general court-martial for any offense which appears to have been committed more than two years before the issuing of the order for such trial, *unless, by reason of having absented himself or of some other manifest impediment, he shall not have been amenable to justice within that period.* Until recently, these saving words of the statute had been generally understood in the Army to be of equivalent effect to the terms "fleeing from justice," as used in section 1045, Revised Statutes, to defeat the operation of the statute of limitation in the Federal courts, and which long ago received judicial definition. But late opinions of the Attorney-General have held that mere absence from the Army without leave does not necessarily amount, in law, to the im-

pediment to arrest and trial within the meaning of the Article of War, but that in every case it was a question of fact for the court whether, by reason of such absence, a deserter had or not been amenable to justice.

In view of the standing reward offered for the apprehension of deserters and the duty incumbent by law upon public officers to effect their arrest when practicable, courts-martial are usually inclined to consider, in the absence of evidence that a deserter's whereabouts were known to the military authorities, that while absent he was *not* amenable to justice. Nevertheless, the controversy that is continued on this subject cannot fail to injuriously affect the discipline of the military service by tending to extenuate in the minds of enlisted men the responsibility for this grave crime and leading those disposed to desert to believe that by hiding for two years they may escape punishment. Nor is the question confined to deserters alone, since it might equally arise in the case of a mutineer or other offender against the Articles of War, who might escape and evade arrest by secreting himself for more than two years.

As a settlement of the whole question upon a satisfactory basis I would advise, in conformity with the views of the Judge-Advocate-General, that some certain term of amenability be fixed in the case of deserters. This term, however, ought not, in my opinion, to be too short, lest a hope of early immunity should be held out to encourage a crime already too prevalent; nor should the law to be enacted be complicated by any proviso in reference to the offenders having been within or without the territorial domain of the United States, which, as a rule, it would be wholly impossible for the government to ascertain or prove.

QUARTERMASTER'S DEPARTMENT.

The Quartermaster-General reports that the expenditures of the Quartermaster's Department during the fiscal year have been \$10,758,001.11; that \$12,135.50 was transferred from the appropriation for support of the Military Prison to the Commissary Department on account of subsistence of prisoners; that \$198,108.26 has been covered into the surplus fund in the Treasury, and that the balance to credit of Quartermaster's Department appropriation in Treasury on 30th June, 1879, was \$1,219,701.15.

The expenditures of the department have decreased. In 1874 they were \$14,558,317.11; in 1879 they were \$10,758,001.11.

He recommends the enlistment of post quartermaster's sergeants, much needed to give personal care to property and supplies, and preserve knowledge of business affairs and of condition of buildings and property at posts, now lost by frequent changes of station of the lieutenants, who act throughout the Army as post quartermasters, and who, being attached to companies, are replaced every time a company is detached and ordered to a new post. He also recommends that these lieutenants, when their detail as A. A. Q. M. has been approved by the Secretary of War, be allowed ten dollars per month extra pay as com-

compensation for responsibility and risk of loss involved in the care of money and supplies. In these recommendations I fully concur.

The department moved during the year 59,177 persons, 4,921 beasts, and 120,440 tons of supplies from the settlements to the military posts, many of which are in the far interior and at the end of long lines of communication. The cost of this transportation was \$2,215,968.05.

The embarrassment and expenditure arising in the legislation against the land-grant railroads still continues, and the repeal of this special legislation, which would leave these questions and claims to be settled on the principles of law and equity decided to be applicable by the Supreme Court, is again recommended by the Quartermaster-General and concurred in by me.

The Pacific Railroads transported 10,486 persons, 1,766 beasts, and 52,147,582 pounds of supplies during the year. At their regular tariff rates the value of this service was \$721,943.40. The total value of the military transportation over these roads to 30th June, 1879, is \$10,362,331.99.

The railroads who purchased material from the Quartermaster's Department, under executive orders of October, 1865, still owed the United States, on the 1st of July last, the sum of \$1,892,677.11. Of this amount the Nashville and Northwestern Railroad, which is insolvent, owes \$908,550.27, which amount it is not supposed will ever be paid.

Cavalry and artillery horses.—One thousand six hundred and eighty-six horses were bought at average cost of \$92.62. Last year the average price paid was \$117.23, or 20 per cent. higher. One thousand four hundred and eighty-nine mules were purchased at average price of \$105.41, which is 20 per cent. less than the price of last year, which was \$130.15.

Sales of disabled and unserviceable animals realized the sum of \$75,193.55, which has been deposited in Treasury to credit of miscellaneous receipts:

There were in service on June 30th 10,990 horses and 10,032 mules, which, with an Army of 25,000 men, is about 100 beasts to 120 men.

Our Army is more thoroughly provided with transportation than most others. It is always on a war footing, and when a savage tribe attacks a party and commits a massacre the relieving troops move, as in a recent instance, on a few hours' notice, a thousand miles from their cantonments and begin a march of 180 miles, through a desert, mountain country, the instant they reach the base of supplies on the Pacific Railroad, and complete it in less than three days and rescue the survivors.

The Quartermaster-General calls attention to the inequality of recent legislation on the subject of officers' horses and the hardship imposed on officers in some districts by abolishing the issues of fuel. Officers east of the Mississippi suffer from the first, those in the far western wilderness from the second.

Claims under act of July 4, 1864.—In the investigation and examina-

tion of claims for compensation for quartermaster's stores taken by the Army, under the act of July 4, 1864, the sum of \$122,825.52 has been expended during the year; 2,460 claims for nearly two millions of dollars have been investigated, and on these the investigating agents recommended allowance of one-fourth of a million; 3,796 claims have been considered during the year, amounting to \$3,180,658.55; 1,667 have been reported to the Treasury, with recommendation for allowances amounting to \$121,568.26. Under this law 40,748 claims have been filed for \$30,557,014.99—9,905 have been reported on favorably for allowance of \$4,143,932.95; 19,194 have been rejected, amounting to \$17,332,995.60; 11,649 remain, asking for \$5,523,293.55.

The Quartermaster-General again calls attention to the vast amount of money accounts, vouchers, claims, and other valuable records exposed in his office, a very dangerous building, to risk of total destruction by fire, and renews his recommendation for the construction of a simple and cheap and perfectly fire-proof building of brick near the State, War, and Navy Departments, for safe storage of such records from these branches of the government. He estimates the cost of nearly 2,000,000 of cubic feet of safe fire-proof storage at \$200,000, and submits again the plan and estimates to which he called attention last year. I again recommend this project to favorable consideration as both judicious and economical.

New military posts have been under construction on the Yellowstone or Milk River, near the northern boundary-line, on the line of communication of the renegade Indians who fled into British America; on Lake Chelan, in Northern Washington Territory, and on the north fork of the Canadian River, in the Indian Territory; also on Bear Butte Creek, in the Black Hills, Dakota. Other military posts were authorized by law at El Paso, Texas; at Pagosa Springs, Colorado, and on the Niobrara River, in Nebraska.

Sites of military posts in Texas.—The remarks on this subject of last annual report are referred to. No change in the situation has occurred; the United States is still a tenant, leasing from year to year the sites of most of these posts, and subject to the will of the owners as to the rent to be paid from year to year. Without full authority and discretion in these purchases, which the department does not possess, the question cannot be settled properly. This subject requires the attention and action of Congress.

Transfer of military headquarters to military posts.—The law which required this transfer has been conditionally repealed, but the attempt to execute it has involved the War Department in expenditure for the—

Division of the Atlantic and Department of the East	\$184,000
Department of Dakota.....	299,000
Department of the Platte.....	148,000
Department of Texas.....	116,000
Division of Pacific and Department of California	54,000
Total	801,000

The Quartermaster's Depot at San Francisco has, at the request of the business men of the Pacific coast, been added to the list of general depots of the Quartermaster's Department, reserving, however, to the general commanding the Division of the Pacific authority in regard to supplies in the depot for his Division.

Congress, by the law of March 3, 1879, required the manufacture of Army supplies, when economical, to be established at the military prison at Fort Leavenworth. The boots and shoes and chairs for the Army are being made there by convict labor. Measures are instituted to begin the manufacture of harness at the prison, and the question of transferring to the prison the manufacture of wagons, ambulances, and other vehicles is under consideration.

Military cemeteries.—The military cemeteries, eighty in number, are in good order, and improve in beauty as cultivation improves. I caused the materials of the ancient portico of the old War Department, on its demolition to make room for the new building, to be transferred to the Arlington Cemetery, where the old columns and entablature have been used in constructing two handsome and appropriate entrances to that cemetery. It is suggested by the Quartermaster-General that the cemetery affords ample space, without encroaching on the ground occupied by the soldiers of the war, to be used as a National Government Cemetery for the interment of members of Congress and officers of all services of the United States who may die at the Capital or whose friends may desire for them such a place of sepulture. This subject is worthy of consideration.

A small appropriation is needed for improving the road between the Capitol and Arlington Cemetery, and also one to complete the estimate for construction of a road, already more than half completed by order of Congress, between Vicksburg and the Vicksburg Military Cemetery.

The work of marking the graves in military cemeteries with marble and granite head-stones is practically completed. Contracts have been let for placing marble head-stones on the graves of soldiers who died during the war and were buried in private village and city cemeteries, and whose friends have not been able to do this honor to their memory. The work can hardly be begun before next spring.

SUBSISTENCE DEPARTMENT.

The Commissary-General recommends that the appropriation for subsistence of the Army be made available from the passage of the act making it, in which recommendation I concur.

Supplies, as a rule, are purchased from producers and manufacturers or importers nearest points of consumption, when consistent with a due regard to economy and the procurement of stores of a proper quality.

The purchases of flour in accordance with above rule, the increase in amount, and the improvement of quality produced near posts in Texas, Missouri, Nebraska, New Mexico, Colorado, Wyoming, and Arizona are referred to

Attention is invited to the fact that the Subsistence Department has not been reimbursed for the value of a large quantity of supplies issued to Indians and transferred to Indian agents, and the Commissary-General states that in his estimates for prisoners of war for the next fiscal year he has included only Indians for the subsistence of whom no other appropriation is made, being of the opinion that Congress does not intend to make double appropriations for the subsistence of Indians.

The Commissary-General renews the recommendation, made in a previous annual report, that section 1144 Revised Statutes be so amended as to authorize the Commissary-General (instead of the Inspectors-General, as now authorized) to designate, with the approval of the Secretary of War, the articles which shall be kept on hand by the Subsistence Department for sale to officers and enlisted men, and that sections 1299 and 1300 be amended accordingly.

He also recommends that sales to company messes be exempted from the proviso of the last Army appropriation act, requiring 10 per centum to be added to all stores and other articles sold to officers and enlisted men. Such stores are, as a rule, purchased from funds received by the companies from the sale of savings of the ration to the Subsistence Department, and as that department pays the companies only the cost of the stores it purchases from them it is thought that it is hardly just to them to charge for supplies sold in lieu of the savings purchased 10 per centum in addition to their cost.

The Commissary-General renews his previous recommendations that cooks and bakers should be specially enlisted, extra pay given them, and schools established for their instruction; invites attention to that portion of report of Board of Officers on Army Cooking which relates to this subject.

The enactment of a law authorizing the Commissary-General to detail such officers of the Subsistence Department as may be necessary to investigate claims not already decided upon by the Commissary-General, or which, having been decided, may be reopened on account of new evidence submitted, is recommended.

MEDICAL DEPARTMENT.

The total number of deaths from all causes reported among the white troops was 266, or 12 per 1,000 of mean strength. Of these, 162, or 7 per 1,000 of strength, died of disease, and 104, or 5 per 1,000 of strength, of wounds, accidents, and injuries.

The proportion of deaths from all causes to cases treated was 1 to 142.

The total number of white soldiers reported to have been discharged the service on "surgeon's certificate of disability" was 677, or 31 per 1,000 of mean strength.

The total number of deaths of colored soldiers reported from all causes was 28, or 14 per 1,000 of mean strength. Of these, 15, or 8 per

1,000 of strength, died of disease, and 13, or 6 per 1,000 of strength, of wounds, accidents, and injuries.

The proportion of deaths from all causes to cases treated was 1 to 140.

The total number of colored soldiers reported to have been discharged on "surgeon's certificate of disability" was 42, or 22 per 1,000 of mean strength.

I invite the attention of Congress to the facts stated by the Surgeon-General concerning the great increase of the business of his office caused by the recent legislation upon the subject of pensions. The official demands upon the office during the fiscal year for information as to cause of death in case of deceased soldiers and the hospital record of invalids was 22,339, or an increase of 1,265 over the previous year, and greater by 1,954 than the average during nine years previously. Besides this increase of current business, the office was burdened with the arrears of past years, amounting on July 1, 1878, to 16,844 cases. With the additional clerical force which commenced work in May, 1878, the accumulation was rapidly reduced, so that on 26th of July last the number of cases awaiting action had been brought down to 2,744; but since July 1, 1879, a great increase in the number of new cases received has taken place. The average number of new cases, which had been 1,862 monthly during the previous fiscal year, rose during July, 1879, to 2,045, and during the month of August to 4,255. As a consequence, and notwithstanding every effort of which the present clerical force is capable, the number of cases in arrears has rapidly increased. By September 1, 1879, it was 4,651 cases. It is deemed certain that business of this character will continue to increase, and unless a temporary increase of the number of clerks is allowed to meet the emergency, the work of the office must again fall into arrears and greatly delay the adjustment of pension cases.

In the Division of Surgical Records the surgical reports received from medical officers of the Army at posts and with detachments of troops engaged in Indian hostilities were examined, and the cases reported were classified according to the seat or nature of injury or operation. The surgical portion of the Medical and Surgical History of the War was continued, and the descriptive catalogues of the surgical, anatomical, and miscellaneous sections of the Army Medical Museum were completed to include all specimens received during the fiscal year ending June 30, 1879.

The cases of wounds, accidents, and injuries reported in Class V of the monthly reports of sick and wounded numbered 5,308, while the mean strength of the Army was 23,663 men; 117 deaths were occasioned by wounds received in action or other violent causes, a proportion of 4.9 per 1,000 of the mean strength.

PAY DEPARTMENT.

The Paymaster-General recommends that the second section of the act of July 24, 1876, be rescinded, which forbids payment of mileage to

officers for travel "on any railroad on which troops of the United States are entitled to be transported free of charge." This act is described as a hardship toward the officers traveling without troops, deprived thus of reimbursement of actual expenses of traveling (of which mileage is intended to be an average), while he is not in a position to execute or enforce the policy of Congress toward the roads.

He again presents the claims of the annuity scheme, quoting the language of Secretaries Cass and Poinsett in favor of some such system, in their annual reports of 1833 and 1837.

He states that a large share of the most experienced officers appear to be in favor of an increase of pay of non-commissioned staff officers in regiments and of first sergeants of companies, as calculated to improve and elevate the rank and file.

He suggests that while the President now has power to confer brevets for distinguished conduct in the field, he should also have the power, in exceptional cases, of directing payment to be made to an officer according to his brevet rank. This would be especially desirable in reference to an officer commanding a department or an army in the field.

He states that the Freedmen's Bureau, for payment of bounties, &c., to colored soldiers, organized in 1867, and transferred in 1872 to the Adjutant-General, is now in operation in the Pay Department, under the act of March 3, 1879.

REPORT OF THE CHIEF OF ENGINEERS.

The report of the Chief of Engineers states that work upon our sea-coast defenses has been limited, in accordance with the terms of the act of March 23, 1878, to their protection, preservation, and repair. For the reason that these works are subject, more than any other national structures, with the exception, perhaps, of light houses, to the destructive and deteriorating effects of the sea, the amount heretofore appropriated for these objects has proved insufficient, many necessary works of repair and protection remaining unexecuted at the close of the last fiscal year for want of funds.

No progress whatever has been made for several years past in the construction of new or in the modification of our old works, built before the inventions of modern ordnance and armored ships, for want of appropriations therefor; but the Engineer Department of the Army, in the light of full information respecting the recent great improvements in ordnance and armor, has prepared plans for modifying some of our old works and constructing new ones. These plans provide for mounting the heaviest of modern rifled guns and resisting the projectiles of cannon of the immense calibers now possessed by nearly every maritime nation of Europe.

The Chief of Engineers very truly remarks that, in the present condition of our sea-coast defenses, injuries to our citizens abroad and

insults to our flag could not be resented with that vigor and promptitude demanded by the honor and dignity of the nation, and justified by a knowledge that, come what may, our navy-yards, maritime cities, and depots for military and naval stores will be unassailable behind impregnable fortifications and obstructions; and I commend the views of that officer respecting the necessity for reasonable appropriations for our sea-coast defenses, as expressed in his report, to the earnest attention of Congress and the country.

The Battalion of Engineers stationed at the Engineer School of Application at Willets Point and at the Military Academy has been engaged in the development of our torpedo system, which has now been brought to a state of efficiency not inferior, it is believed, to that of any nation.

Fortifications and torpedoes, or submarine mines, have, in recent years, become the twin defenses of maritime countries, the latter being necessary to hold the enemy's vessels under the fire of the former in the approaches to our harbors; and I believe it is simply a matter of common prudence and good judgment that the appropriations asked for by the Chief of Engineers for providing torpedoes to be stored in our fortifications, from which they can be planted in time of war in the channels and fair-ways of our harbors, and for preparing our most important forts for operating them by providing the necessary bomb-proof covers for the electrical apparatus, galleries of approach, &c., be granted; also that, for the reasons stated by the Chief of Engineers, the means should be provided for increasing the Battalion of Engineers from the number now fixed at two hundred enlisted men, under the recent law reducing the Army, to five hundred and twenty enlisted men.

The construction, repair, preservation, and completion of certain public works on rivers and harbors, and the surveys and examinations connected therewith, have been prosecuted during the fiscal year ending June 30, 1879, with the means provided by the river and harbor act approved June 18, 1878, and the balances of previous appropriations remaining unexpended on July 1, 1878.

The execution of all works provided for in the river and harbor act approved March 3, 1879, for which the plans and projects have been approved, is being proceeded with. In the case of new works unavoidable delays have in some instances arisen from the necessity of considering legal questions touching the occupancy of their sites. For further information respecting these improvements and surveys reference may be made to the report of the Chief of Engineers, which contains a detailed account of the steps taken to carry out the provisions of the river and harbor acts and of the satisfactory progress and condition of these works. Although many of them are only partially completed, they have afforded an increased security and facility to navigation far exceeding in value the sums expended upon them, adding annually to the wealth and resources of the country by an increase of commerce,

due to the greater depth of channels, greater security in their navigation, and the saving of time in their use.

I again ask attention to the necessity of legislation to protect the channels of rivers and fair-ways of harbors from injuries arising from wanton deposits by passing vessels of ballast, ashes from steamers, and of all substances which would tend to the formation of shoals therein, and also to protect the breakwaters, piers, and other public works constructed by the United States from trespass upon as well as injury thereto.

To comply with the requirements of the joint resolution of Congress of June 20, 1879, a Board of Officers of the Corps of Engineers has been convened to inquire into and report upon the practicability of bridging or tunneling the Detroit River at or near the city of Detroit, without material or undue injury to the navigation of the river. The report of the board has not as yet been received.

The Mississippi River Commission, constituted by act of June 28, 1879, for the improvement of that river from the Head of the Passes, near its mouth, to its headwaters, has been organized and has entered upon its duties.

The survey of the Mississippi River has been extended from Scanlon's Landing to Helena, Ark. The longitude and latitude of Louisiana, Mo., Rock Island, Ill., and Red Wing, Minn., have been determined: Charts Nos. 8, 9, 10, and 11 of the Mississippi River south of Memphis have been completed.

On the survey of the Northern and Northwestern lakes, the main triangulation connecting Lake Erie with Lake Michigan has been nearly completed. Coast charts Nos. 3, 4, and 5 of Lake Ontario and Nos. 2, 3, and 4 of Lake Erie have been finished.

The survey of the territory west of the one hundredth meridian has been continued in the States of Colorado, Texas, Nevada, California, and Oregon, and in the Territories of Arizona, New Mexico, Utah, and Washington, and in connection with this work a special survey of Great Salt Lake has been completed.

No funds were available for the prosecution of the field-work on this survey after June 30, 1879, and all parties were withdrawn from the field on or before that date. There are eight engineer officers now employed in the Western military divisions and departments in making surveys and in collecting and mapping the geographical and topographical information obtained in scouts and campaigns against hostile Indians. Maps prepared in this way are of great value to the War Department and to the Army. It is very desirable that the unexplored areas in the country liable to be traversed by the troops and hostile Indians be mapped as rapidly as possible, and an appropriation of \$50,000 is earnestly recommended for this purpose.

Improvement of the South Pass of the Mississippi River.—Mr. James B. Eads and associates began the construction of jetties and other works

at the South Pass of the Mississippi River June 2, 1875. The object was to open and permanently maintain a navigable channel, 26 feet deep, through then existing extensive shoals and bars which were underlying about $7\frac{1}{2}$ feet of water, and which, as obstacles to navigation, rendered this pass useless to commerce.

Under an act of March 3, 1875, authorizing the undertaking, Mr. Eads and associates were to receive certain payments as the improvement progressed toward the creation of the channel sought and required to be secured within a specified time, and they were to receive periodical payments for twenty years for its maintenance, with a view to insuring permanency of the improvement. The progress of the work has been the subject-matter of several reports during each year from an engineer officer on duty at Port Eads, and has been duly communicated to Congress.

In accordance with the provisions of the act of March 3, 1875, and amendatory acts, payments for the work have been made on requisitions dated as follows: January 20, 1877, \$500,000; January 10, 1878, \$500,000; June 21, 1878, \$500,000; between October 5, 1878, and February 17, 1879, \$216,882.06; March 7, 1879, \$750,000; between March 14 and May 15, 1879, \$214,251.27; May 29, 1879, \$500,000; June 26, 1879, \$68,886.67; July 3, 1879, \$500,000, and July 23, 1879, \$500,000; total, \$4,250,000. The half million of dollars last allowed concluded the payments authorized for *creating* the channel required by law.

The first grand stage of this important work was reached July 8, 1879, and from that date began a second undertaking relative to *maintenance* of the channel, which, if accomplished, entitles Mr. Eads and associates to \$100,000 per annum, payable in equal quarterly installments. The first quarterly payment has been demanded, and is under consideration on a certificate recently received from the engineer officer setting forth "that the maintenance, by James B. Eads and his associates, of a channel through the jetties at the mouth of South Pass, Mississippi River, twenty-six feet in depth, and not less than two hundred feet in width at the bottom, and having through it a central depth of thirty feet, without regard to width, has been accomplished from July 8 to October 8, 1879, with the exception of twenty days, when a failure in some part to maintain such a channel occurred. The failure was on the 14th, 15th, 16th, and 17th of August for the first period, and from August 27th to September 11th, inclusive, for the second period. During the whole of the interval from July 8 to October 8, 1879, a navigable channel having a greater depth than twenty-six feet has been maintained at the head of South Pass, and throughout that interval of time the twenty-six feet channel has been, at all times and in all places, here, at least one hundred and ninety feet wide."

The Attorney-General has been requested to render an opinion on several questions as to the proper construction of certain provisions of the law materially bearing upon the claim for payment. If the opinion

pending shall be favorable to Mr. Eads and associates, then the first quarterly payment for maintenance may be made.

Should the full channel be maintained within the meaning of the law for a period of six months from July 8 last, then Mr. Eads and associates will doubtless demand a first semi-annual payment of interest at five per centum per annum on the \$1,000,000 referred to in the acts of March 3, 1875 and 1879. The demand on this account will be duly considered as of course when presented for adjustment.

Besides other works connected with the creation and maintenance of the channel during the past year, the jetties at the mouth of South Pass have been capped with stone over their lower ends; additions have been made to the submerged dam in the pass, and over 4,000 feet of mattress walls, substantially new, have been constructed. The works established at the head of the pass, in order to increase the flow of water through South Pass, have been considerably extended and enlarged. The year has been signalized by a greater measure of success in the attainment of results than any other year since the inauguration of the works. The only problems in connection with the improvements, from an engineering point of view, remaining to be answered in the future, are those involved with the successful and continuous maintenance of the channel already obtained.

REPORT OF THE CHIEF OF ORDNANCE.

Under the various laws of the United States, the Ordnance Department provides arms and munitions of war for the whole military establishment, and has charge of the armories, arsenals, and other ordnance establishments for their manufacture, repairs, and storage. Thus, at the present time, the department is providing ordnance and ordnance stores for the sea-coast fortifications, the whole body of the militia, the Military Academy and the Artillery School, and the Regular Army, in the military establishment, and to the Treasury, Post-Office, and Interior Departments, and the Fish Commission, the Marine Corps, and the thirty colleges authorized by section 1225, Revised Statutes. In addition to this work, it is charged with other important duties in connection therewith not now necessary to enumerate.

The construction of the new buildings at Rock Island Arsenal has progressed in a satisfactory manner, and with the aid of the new appropriations asked for, the workshops will soon be in a condition to receive their machinery and commence manufacturing to meet the future wants of the country.

The convictions of the Chief of Ordnance as to the soundness of the policy of extending governmental support to and thereby actually keeping in existence the only establishments in the country organized and fitted to fabricate heavy ordnance, are felt by me, and are deepened by a fuller consciousness of how inadequately we are provided in this respect for even common emergencies. This, taken in connection with

the fact that our present sea-coast armaments (principally composed of smooth-bores) are almost useless for coping with the heavy artillery of the present, leads me again to urgently recommend that Congress consider the granting of liberal appropriations for our national defenses as a matter of the first importance.

The important tests of the 8-inch breech-loading rifle, converted from a 10-inch smooth-bore gun, are still in progress, and up to date 202 rounds (190 with full battering charges) have been successfully completed. The endurance, so far, has proved satisfactory, and no evidences of want of endurance in its special construction have been, so far, afforded; and there are good grounds for the opinion that it will stand its thorough proof, and establish the fact that we can convert, after this system, our original smooth-bore cast-iron guns into breech-loaders, or produce original breech-loading cannon of the heaviest construction, using in a short time wholly the products of our own founderies and other manufacturing establishments.

Previous allusion has been made to the decided advantages to be derived from the use of breech-loading rifles, especially in casemated works. Since then the unfortunate disaster on board of the Thunderer (the bursting of a 38-ton muzzle-loading gun by the accidental insertion of two charges, impossible to occur in breech-loaders), and the unexcelled results (in power, accuracy, and successful manipulation) recently attained at Meppen, by Herr Krupp, in the trials of his breech-loading guns of 70 and 18 tons, have led to the conviction that it is highly probable that the general introduction of breech-loading instead of muzzle-loading cannon in the armaments of Europe, for all heavy ordnance especially, is a mere matter of time.

During the last fiscal year there were manufactured at the National Armory 20,005 Springfield rifles, and, under the law authorizing it, 1,000 of the experimental Hotchkiss magazine rifles. The former have been produced at a much less cost than heretofore, owing to the increased number manufactured and the improvement of the plant employed; and as there is now available a larger appropriation than usual for the present year, it is confidently expected that the cost will yet be further reduced in the future. There were in store on July 1, 1879, only 22,073 rifles and 5,406 carbines at the armory and arsenals, a wretchedly small number, considering the wants of the present and the calls that may be made in the future.

The Hotchkiss arms are now in the hands of the Regular Army for trial in actual service, and upon the reports to be made bimonthly will depend any recommendations for the supply to be hereafter manufactured. But whether this magazine gun is to be the arm of the future or not, it is not safe to delay providing an ample supply of the Springfield rifles.

The Ordnance Department has now in its possession, set up at the Watertown Arsenal, the finest machine in the world for testing the

strength of metals and other materials, and a small annual appropriation is asked to enable the department to use it. This machine was authorized by Congress, and constructed under the immediate supervision of the late United States board to test iron, steel, &c. Valuable results have already been obtained from its limited use, under circumstances very unfavorable, and it is suggested that a wise policy and a just appreciation of the advantages to inure to the various industries of the country will prompt the Congress to grant the small amount of money necessary to develop its capacities. ■

The work already accomplished has enlisted the active sympathy of scientific men of all classes and metal manufacturers and users, who have not limited their expressions of approval, but have supplemented them with funds to finish work which was commenced but could not be finished owing to the failure of Congress to appropriate the whole sum needed.

REPORT OF THE CHIEF SIGNAL OFFICER.

The Chief Signal Officer reports that the established course of drill and instruction in military signaling and telegraphy, meteorology and the Signal Service duties at stations of observation and report, together with the drills of the Signal Corps with arms, has continued at the School of Instruction and Practice at Fort Whipple, Va. The apparatus needed for the study and exercises, with instruments; for practice in the meteorological duties at stations of observation; the equipment for the drill in field signaling; the drill with the field telegraph train; the construction drill for permanent telegraph lines; and the duties on signal and telegraphic stations, is full and has been improved by useful additions.

The officers of the Signal Service pass the course of drill and instruction, and serve regularly at the post of Fort Whipple before being put upon any other duty. There have been instructed during the year 122 men as assistant observers and 9 for promotion to the grade of sergeant.

The whole active force of the Signal Corps, officers and enlisted men, is practiced, at this post, in the general drills with arms and with telegraphic equipments. The drills occur regularly and embrace all at the post or serving in Washington, sufficiently near to enable them to have the benefit of the practice.

The office files are crowded with applications for enlistment. The severe examinations are successfully undergone. The clause providing "that two sergeants may in each year be appointed to be second lieutenants" gives, by assurance of permanent service and promised reward, that *stimulus* to exertion so long and earnestly sought for. Until the results of this organization, up to this time so satisfactory, have been more fully tested, it is not advisable that changes be attempted.

One hundred and seventy stations have been maintained during the year to fill the system of stations of observation from which reports are

deemed necessary to enable proper warnings to be given of the approach and force of storms, and of other meteoric changes, for the benefit of agricultural and commercial interests.

Twenty-five stations of a second class, hitherto described as "Sunset stations," at which a single observation is taken, daily, at the time of sunset, by citizens employed for this purpose, have been continued in operation.

The daily exchange of telegraphic reports, had by comity of exchange with the chief meteorological office of the Dominion of Canada, has been continued, and warnings have been regularly sent from this office to enable signals to be displayed at the ports of the Dominion at times of threatened danger.

The issue for publication of the official deductions or forecasts had at the office of the Chief Signal Officer, and known as the Synopsis and Indications, has continued during the year. There has been no failure of the delivery of any report to the press during that period. The total number of the reports thus furnished at the hours of 1 a. m., 10.30 a. m., and 7.30 p. m., daily, has been 1,095.

The wide diffusion given these reports may be judged from the fact that they appear daily in almost every newspaper in the United States. When the forecasts or indications thus published are examined in reference to accuracy of preannouncement of the state of the weather only (not the forecasting, as is the custom, the changes of the barometer, thermometer, and average wind-direction to happen), the average percentage of accuracy is found to be 90.7 per cent. verified. A minute analysis of the same forecast and a careful comparison with the weather and the instrumental changes above referred to, afterward occurring within the time and within the district to which each forecast has had reference, has given an average percentage of accuracy of 86.6 per cent. An average of 90 per cent. to follow this comparison is also believed to be attainable.

A telegraphic weather-map charted at this office at the hour for the morning report and rapidly telegraphed, by a process peculiar to the service, to New York, in time to appear in the lines of the charting in the paper going to press at 11.30 a. m., has been devised and is in daily use.

The display of cautionary day and night signals, by flags and lights, upon the lakes and the great ports of the United States upon the Atlantic and Gulf coasts, has been made systematically on occasions of supposed especial danger at ninety-four different sea and lake ports and cities. There were added on January 1, 1878, to the display of day and night signals at the ports which had been "Cautionary" alone up to that date, the display by day or at night of the "Cautionary Off-shore Signal," indicating that while winds might be high and there might be danger, the winds to follow were expected to blow "off-shore." It is of important utility in the management and for the safety of vessels to be

thus preadvised as to coming winds. The adoption of this signal, first made, so far as is known, at the ports of the United States, has much increased the usefulness of the service. Of the total number of cautionary signals thus displayed, 80.1 per cent. have afterwards been reported as justified. In the cases reported as failures of justification following the display, the wind did not attain, at the place of display, a violence held to justify it. No great storm has swept over any considerable number of the ports of the United States without preannouncement.

The plan of "Display Stations," referred to in the last annual report, has continued in operation. These stations are subordinate stations, located at the smaller lake or sea ports, and are classed several together in sections, each section being under the immediate supervision of a sergeant of the Signal Corps, located at a named station at some neighboring principal port to exhibit its storm-warnings. The power of displaying the warning signals will, with little added expense, more than double under this system.

The exhibition of symbol maps, on which the meteoric condition is shown by symbol at the rooms of the boards of trade, chambers of commerce, and of other commercial associations, and at places of public resort, for the benefit of shipping and other interests, the display of bulletins, the distribution of weather maps, and the employment of other methods for rapidly diffusing for public use the information had at this office, have been continued.

By an arrangement with the Post-Office Department, 6,142 printed "Farmers' Bulletins," on which appear daily the forecasts of this office, have been distributed and displayed in frames daily at as many different post-offices in different cities, villages, and hamlets in different States, for the use of the agricultural population throughout the United States.

A "Weather Case or Farmers' Weather Indicator," an instrument arranged to exhibit together on a simple plan the meteorological indications of several instruments, and in such way that they can be easily noted by any one, is in preparation for general issue.

Since the date of the last annual report, a Railway Bulletin Service, on railways, has been established in co-operation with this office. The different railway companies receive at the time of the midnight report and by telegraph a copy of the report, which is distributed under supervision of the superintendents of the railway telegraphs, to designated stations along the lines.

The river reports, giving the average depth of water of the different great rivers of the interior, and notice of dangerous rises, for the benefit of river commerce and the population in the vicinity, have been regularly made, telegraphed, bulletined in frames, and published by the press at the different river ports and cities. River stations have been opened during the year on the principal California rivers.

A circular issued on March 15, 1875, showing the range between high

and low water marks on the western rivers, and the height at which the river rises became dangerous along their banks, is believed to have been the first systematic attempt to establish a "danger line" on these rivers. This circular was prepared from *data* collected at this office, and was given by order of the Secretary of War a wide circulation through the press and otherwise.

A series of canal reports, announcing temperatures probable to affect the canal commerce, were issued during the season of closing navigation at the commencement of the last winter, for the uses of canal commerce in the several States and the interests depending thereon.

The regular daily publication of the reports by the press, now continued for nine years without cost to the United States, is considered as an evidence of the usefulness of the reports and of the favor with which they are received by the communities for which they are intended.

The office publications, the Weekly Weather Chronicle and the Monthly Weather Review, have been regularly issued during the year. A number of valuable charts have been prepared.

By authority of the War Department, and with the courteous co-operation of scientists and chiefs of meteorological services representing the different countries, a record of observations taken daily, simultaneously with the observations taken throughout the United States and the adjacent islands, is exchanged semi-monthly. These reports are to cover the territorial extent of Algiers, Austria, Belgium, Great Britain, China, Central America, Denmark, France, Germany, Greece, India, Italy, Japan, Mexico, The Netherlands, Norway, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, British North America, the United States, Sandwich Islands, West Indies, and South America.

On July 1, 1875, the daily issue of a printed bulletin, exhibiting these international simultaneous reports, was commenced at this office, and has been since maintained.

On July 1, 1878, the first issue of an international weather map, issued daily and embracing the whole northern hemisphere, was commenced at this office. The issue of such a map, thus first issued in the United States, is without a precedent in history. The studies it makes possible must lead to important results in matters relating to international meteorology, and possibly to the international exchange of data on which "warnings" may be based in distant countries. Additional weather maps of the northern hemisphere, tracing storm tracks upon the oceans and exhibiting meteorological conditions by months, have been issued during the present year.

The sea-coast service of the Signal Service, in connection with the Life-Saving Service, has been continued during the year.

A code of danger or distress signals, to be furnished without cost to all vessels sailing from the ports of the United States, and enabling them to communicate by flags with stations or relief parties on the shore in case of need, disaster, or distress, is widely distributed.

In pursuance of the acts of Congress authorizing the construction and operation of telegraphic lines in the interior and upon the frontier, for connecting military posts and stations, and for the protection of the populations from Indian and other depredations, officers and enlisted men of the Signal Corps have been continued upon these duties. The lines in Arizona, New Mexico, and upon the Texan frontier, are nearly completed. The lines in the Northwest, for which provision is made, are pushed rapidly forward. The work of construction has been in large part done by working parties furnished by the active co-operation of department commanders. A total length of 4,467 miles of line, including 543 miles on the sea-coast, was in operation and maintained in the care of officers and enlisted men of the Signal Corps, June 30, 1879.

The lines carried into a country held before these lines were built to be impracticable for such constructions, and maintained in regions and with circumstances as difficult for such operations, perhaps, as any in the world, have been successfully worked as compared with lines under other management and at all similarly circumstanced. The lines have proven of very great value in Indian wars.

The Chief Signal-Officer recommends that there be just provision, by legislation, for the permanent employment and grades of the officers of the corps. The increase of the enlisted force of the corps is recommended as a measure of economy. It is hoped there may be no failure in the appropriation for the service of the amounts estimated for the ensuing year; they have been estimated with careful economy.

THE MILITARY ACADEMY.

I transmit herewith the annual report of the Board of Visitors of the Military Academy at West Point, and invite attention to their recommendations.

It appears that the enlargement and improvement of the cadet barracks is demanded by considerations both of health and of comfort, and it is accordingly recommended.

The Superintendent, Major-General Schofield, reports that it is very important to provide suitable accommodations at West Point for the Board of Visitors and other prominent persons who visit the Academy officially during the annual examination in June. The small hotel situated on the plain is the property of the post fund, the United States having contributed nothing towards its erection. It was designed for the accommodation of the parents and friends of cadets visiting West Point, and of officers transiently at the post. During the commencement season it is wholly occupied by the Board of Visitors and other officials, greatly to the discomfort of all other guests, mainly the parents and friends of the cadets, for whose accommodation the hotel was especially intended.

I concur with General Schofield in recommending an appropriation for the erection of a cottage, adjacent to the hotel, for the use of the

Board of Visitors and other official visitors to the Academy. It is believed that \$10,000 would be a sufficient sum for the purpose.

LEAVENWORTH MILITARY PRISON.

The annual reports from the Leavenworth Military Prison indicate a very satisfactory progress and condition. The labor of the prisoners has been utilized, as far as possible, in manufacture of articles needed for the use of the Army. Extensions have been made to the buildings, and alterations of buildings already in use have been made to adapt them to the better occupancy, both for health and labor. Prisoners have been employed largely in mechanical labor, partly in the work of building the prison wall, but chiefly in the manufacture of shoes, tent pins, and barrack chairs for the Army. The number is reported as follows: 8,530 chairs, 40,000 tent pins, and 51,756 pairs of shoes. The manufacture of boots has only been recently commenced, because of contracts previously made with private manufacturers. The prison farm now contains about fifty acres, all but seven of which have been cleared, fenced, and is cultivated by prisoners' labor. Particular attention has been given to sanitary measures, diet of prisoners, &c., and the report of the prison surgeon shows but three deaths in the year out of a monthly average strength of 327 men.

The governor of the prison makes satisfactory report in relation to the conduct of the prisoners, having but seldom to resort to any severe discipline. This is attested also by the fact that all but an exceedingly small percentage of prisoners secure their release sooner than the expiration of their full term, by earning an abatement under a regulation which allows five days' reduction for each month of good conduct.

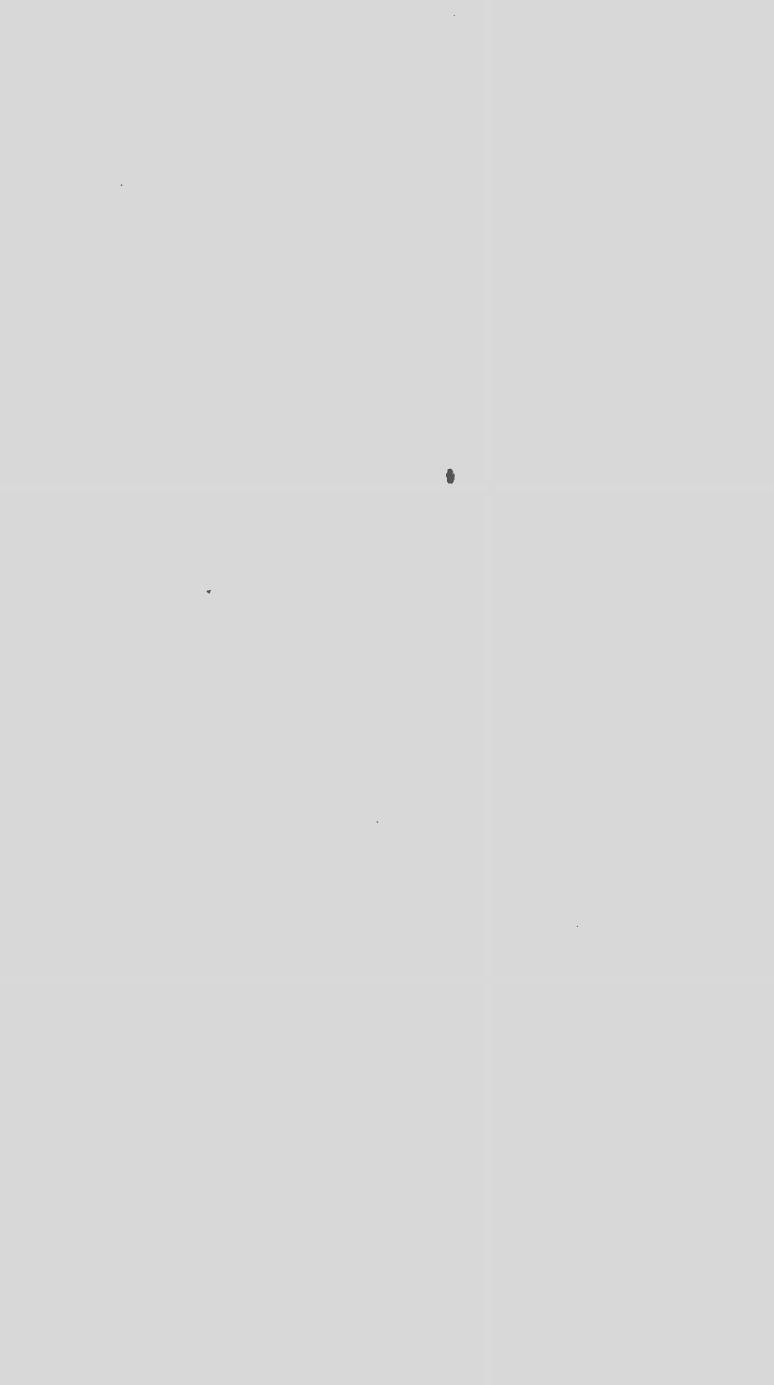
The duties required of the officers of the prison are exacting, and the manner of their performance is worthy of commendation.

It is hoped that legislation, which was asked last winter, may be secured at the coming session of Congress to authorize the use of the earnings of prisoners and receipts for the sale of manufactured articles toward the maintenance of the prison.

GEO. W. McCRARY,
Secretary of War.

REPORT OF THE GENERAL OF THE ARMY.

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REPORT

OF

THE GENERAL OF THE ARMY.

HEADQUARTERS OF THE ARMY,
Washington, D. C., November 1, 1879.

SIR: I now have the honor to submit this, my annual report for the past twelve months, and will preface it as usual by the following tabular statements and returns, compiled by the Adjutant-General.

A.—“Organization of the Regular Army.”

B.—“General return or exhibit of actual strength of the Regular Army.”

C.—“Distribution of troops in the Military Division of the Missouri,” comprehending the Departments of the Missouri, Texas, Platte, and Dakota.

D.—Military Division of the Atlantic, comprehending the Departments of the East and South.

E.—Military Division of the Pacific, comprehending the Departments of California, the Columbia, and Arizona.

F.—Department of West Point.

An analysis of Table B will show that the Army at present is composed of—

	Officers.	Enlisted men.
General officers.....	11	.....
Adjutant-generals.....	17	.....
Inspectors-general.....	6	.....
Judge-advocates.....	9	.....
Quartermasters.....	60	.....
Commissaries of subsistence.....	26	.....
Surgeons and assistants.....	179	187
Paymasters.....	54	.....
Engineers.....	110	192
Ordnance.....	63	397
Signal.....	3	456
Chaplains.....	29	.....
Total General staff.....	556	1,232
Ten regiments of cavalry.....	430	7,206
Five regiments of artillery.....	278	2,387
Twenty-five regiments of infantry.....	851	10,973
Total Line.....	1,559	20,566
Unassigned captain.....	1	.....
Ordnance-sergeants of posts.....		114
Commissary-sergeants of posts.....		151
West Point detachment.....		186
Recruiting detachments and recruits unassigned.....		1,710
Prison-guard, Fort Leavenworth.....		70
Indian scouts.....		233
Total unattached.....	1	2,464
Grand aggregate.....	2,187	24,262

Military Academy, 24 musicians, 8 professors, and 212 cadets. Retired, 388 officers.

The 11 generals, 1,559 officers, 20,566 men, and 233 Indian scouts, with such of the officers of the general staff as are assigned by the War Department to duty with the troops, constitute the Army proper, or the "combatant force." All other parts of the military establishment are provided by law for special service more or less connected with the Army or militia, but are not available for frontier defense; as for instance, the 397 enlisted men of ordnance are in fact workmen at the arsenals; the 192 men of engineers are at Willets Point undergoing instruction in torpedo-practice, and are not subject to the division commander; the 456 men of the Signal Corps are employed in observing the weather or in working telegraphs; the 114 ordnance-sergeants have charge of old forts or fixed magazines; the 151 commissary-sergeants are in charge of stores; 187 are stewards of hospitals; the West Point detachment—186—is localized at the Military Academy; 70 men comprise a prison-guard at Fort Leavenworth, and the recruiting detachments—1,710—are at David's Island, Columbus, Ohio, and Jefferson Barracks, Mo. These various detachments, aggregating 3,463 enlisted men of the highest grades, compose about one-sixth part of the enlisted men provided by law for the whole Army, leaving but 20,799 for actual service. I mention these figures in some detail, because I know that it is the popular belief, shared in by many members of Congress, that we have 25,000 men for duty. I have done all in my power to reduce these detachments to the lowest number possible, so as to afford more men to our skeleton companies, but have found it impossible, and I notice that similar detachments are reported on all Army returns for fifty years back.

There are 430 companies in the Regular Army; 25,000 men would give 58 to each, which is as small as any company should be, and I earnestly recommend that you ask Congress to so legislate that the 25,000 men provided by law may be allowed exclusively for the regiments of the line, and that special provision be made for these several detachments, as has already been done for the Signal Service. The Army cannot, with justice, be held responsible for the work of 25,000 men, when so large a fraction is necessarily diverted to other uses, it may be of equal national importance.

Tables C, D, E, and F show how these troops are distributed for service. The whole territory of the United States is divided into nine departments, and these departments are grouped into three grand military divisions, commanded by Lieutenant-General Sheridan, Major-General Hancock, and Major-General McDowell.

West Point constitutes a distinct department, commanded by Major-General Schofield.

In order to show the vast amount of labor and service performed by officers and men, I herewith submit full reports by all the division and department commanders, with such subordinate reports as seem necessary to a full understanding of the condition of the troops and the history of events during the past year. These are so full and interesting that I might safely leave each commander to state his own case, but in order to give emphasis to certain recommendations by department and division commanders, I am forced to refer to some of the events in partial detail.

In May last General Terry, commanding the Department of Dakota, reported that Indians from Sitting Bull's camp beyond the northern national boundary had followed the buffalo south and were likely to create disorder and commit acts of hostility against Indians and others belonging on our side, and that he knew of no way to put a stop to this

annoyance other than by organizing a strong column at Fort Keogh, clearing the country, and then establishing a summer camp of moderate size at Poplar Creek Agency, on the Missouri River, but that under existing orders he did not feel justified in adopting this course, and asked for instructions. He was promptly notified that there was no objection to temporary operations and a temporary cantonment, but that we were not prepared to build any permanent post in that quarter, other than Fort Assiniboine, for which Congress had made an appropriation. General Terry committed this task to Colonel Nelson A. Miles, commanding District of the Yellowstone, to whose report, and to that of General Terry himself, I refer for full details of the whole expedition. It accomplished all that was designed, and resulted in the withdrawal north of the boundary of all hostile Indians, and a better understanding with the Dominion authorities who have charge of the Canadian Indians. Nevertheless, we know that a large body of Indians do yet remain in Canada near our border, many of whom are hostile Sioux, whose relatives are with Red Cloud and Spotted Tail on their reservation; that the buffalo on which they mainly subsist are fast disappearing, and that want and hunger will soon compel them to depredate for food on our Indians or on our people; and that some more permanent security must be found than results from the good will of our neighbors. The country north of the Missouri River from Fort Buford to Assiniboine, "a distance of 250 miles as the crow flies," is perfectly open to such incursions, and General Terry advises that a new, strong, and permanent military post be built near the national boundary between these two points, and asks therefor the sum of \$200,000. He also asks for an additional \$100,000 to complete Assiniboine. These two posts will be on or near the national boundary, and will continue for a long while, if not forever, our extreme northern line of defense, and therefore such structures should be made of stone or brick.

It is only four years since the Yellowstone was the northern defensive line, was infested by the most warlike Indians of the continent, and Congress provided for the building of two new posts thereon, viz, Keogh and Custer. As usual, the building of these posts or places of security has resulted in the rapid settlement of the whole line from Bismarck westward; so that, at the same rate of progress, in two or three years this line of travel, like that along the Platte, will be able to take care of itself, and Keogh and Custer may be abandoned. Then we will have to move the troops northward; and probably it is wiser to jump to this conclusion and to take post at once along the national boundary, in which event the post referred to by General Terry will be absolutely necessary. I therefore recommend that Congress be asked to appropriate \$100,000 to complete Fort Assiniboine, and \$200,000 to build a new post near Wood Mountain, at some point near the 107th parallel west of Greenwich, the exact spot to be afterward determined by careful exploration, and that the appropriation be made available for two years.

In this connection I also beg to submit my conviction that very soon the progress of events will make it absolutely necessary to remove all the Indians now located on the Upper Missouri, viz, Arickarees, Gros Ventres, Piegans, Bloods, and Crows, to the Sioux Reservation below Cannon Ball Creek, and to open up for actual settlers all the land in the region north and west of that reservation.

KANSAS BORDER TROUBLES.

The Indian Territory, south of Kansas and west of Arkansas, is by far the most valuable body of land now reserved for the sole use and occu-

pation of any of the Indian tribes. As early as April, 1879, certain designing parties put in circulation a report that the surplus land would soon be opened by Congress to settlement, and emigrants at once began to cross over and stake out "claims."

The President issued his proclamation of April 26, 1879, and gave orders that the military authorities should respond to the call of the rightful civil agents, who were required to remove all intruders or trespassers by force if necessary, also to protect the Indians in the full and free enjoyment of all parts of that Territory. This most delicate duty has been admirably performed by the troops under the orders of General Pope, to whose report I refer for fuller details, and I now only allude to the subject to illustrate how military posts result from temporary and local causes. Small detachments have all summer been distributed and are yet posted along the southern border of Kansas in tents, but as winter comes on the officers in command will naturally construct huts and houses, which will, unless the cause be soon removed, result in a greater number of the small posts which already add so much to the cost of the Army. Many of these posts, not only in Kansas, but throughout the West, along our northern border, and on the Atlantic and Gulf seaboard, which were absolutely necessary in their day, are now more than useless. All of them contain, however, more or less public property which must be guarded and accounted for by existing laws. These small posts could be abandoned to great advantage to the military and in the interest of economy. Congress alone can dispose of any land or buildings once reduced to possession, and I am aware that the Secretary of War is powerless in the premises, yet I trust he will ask of Congress the necessary authority to sell all superfluous posts, under such restrictions as it may impose. I believe that out of the great number of forts and military posts now garrisoned or in the custody of ordnance sergeants about thirty might be sold to great advantage. By diminishing the number of such posts we can collect our troops in larger garrisons at essential strategic points, increasing their efficiency and usefulness, and thereby will avoid the cost of repairs to buildings of no military value whatever. I have heretofore reported the names of several such forts and military posts, and will be ready at any moment to increase the list whenever called on to do so.

AFFAIRS IN TEXAS.

The report of General Ord shows a most satisfactory condition of affairs in that department, especially along the Rio Grande frontier. The troops have been most active in counteracting the effects of raids made by small bands of thieving Indians and vagabonds from Mexico, and from the direction of New Mexico; have created a comparative freedom from danger which has become habitual in that quarter of our country for two or three years, and have thereby aided materially in stimulating the great prosperity which now prevails in Texas. A large immigration has poured into that State, filling up her waste lands, and as a consequence settlements have overrun Forts Richardson and Griffin, and compelled the removal of the frontier further west. General Ord now asks a specific appropriation for a post on the line between Forts Concho and Elliott to give increased security to the very large and growing trade in cattle driven from Texas by this route to the railroad at Fort Dodge. I am aware that Congress regards these new posts as extravagant; but each one repays a hundred-fold its cost by increased security and increased national wealth. I therefore recommend the appropriation of \$60,000 for this projected post. If Forts Griffin and

Richardson (which this new post is designed to replace) could be sold, the proceeds would go far toward building the new one; but the law compels all moneys received by sales of any kind to go to the miscellaneous receipts of the Treasury, and no permanent military structures can be erected without a specific appropriation by Congress.

I also recommend that a further appropriation of \$100,000 be made for new buildings at existing military stations in Texas, to be disbursed under the direction of the chief quartermaster of the department, and subject to the orders of the department commander.

Heretofore, about one-fifth of the effective force of the whole Army has been stationed in Texas, but recently General Sheridan was forced to draw from Fort Clark Colonel Mackenzie and the six companies of the Fourth Cavalry stationed there, in order to make up the force now at Fort Garland, which was imperatively demanded for service in the Ute country.

There still remain in Texas two full regiments of cavalry, four of infantry, and four companies of artillery, which will be maintained to the maximum of strength, and by activity will make up for want of numbers. I trust the authorities of Texas will appreciate the necessity for troops elsewhere, and believe that all in the military service are laboring to perpetuate the improved condition of affairs which seems to have given both satisfaction and prosperity.

THE UTES AND APACHES.

The Indians known as "Utes," from which Utah takes its name, was applied to all the nomads west of the Rocky Mountains as far as Nevada, and south into New Mexico and Arizona. Gradually they have been surrounded by white settlements and broken up into many distinct bands, the four principal of which are located as follows: The Uintahs in Northeast Utah, estimated at 430 souls; the Los Pinos in the Uncompagre Valley, Colorado, estimated at 2,000 souls; the Southern Utes in Southwest Colorado, with 934 souls, and the White River Utes in Northwest Colorado, estimated at 800 souls. To such as desire to study the nature of recent events in that quarter I refer to the reports of the agents of these separate bands, which will be found on pages 622, 510, 512, and 514 of Part I of the Report of the Secretary of the Interior for the year 1878; and for a more complete description of the Indians themselves and the country they inhabit, I beg to refer to a most interesting report made by Lieutenant McCauley, Third Cavalry, of October 15, 1878, published at length in Senate Ex. Doc. No. 62, third session, Forty-fifth Congress, and to Hayden's maps of Colorado. Suffice it now for me to say that these Indians are of the worst class, and occupy the roughest part of our country for farming, grazing, or for military operations. Their management is complicated by the fact that their country is known to possess mineral deposits, which attract a bold and adventurous class of white men. They are very warlike, and have no difficulty in procuring, in exchange for their deer-skins, horses, and sheep, any amount of the best rifles and ammunition. In former years they used to come east of the Rocky Mountains to hunt buffalo, but of late years they have confined their hunting to the bear, elk, and deer of the mountain region. As long as game lasts they will not work or attempt farming, except in the smallest and most ridiculous way, and that only by compulsion.

Mr. Meeker, the Indian agent at White River, has had occasion frequently to address complaints to the Commissioner of Indian Affairs, to

the governor of Colorado, and the commanding officer of the nearest military post (Fort Steele) to the effect that the Indians of his agency would not remain on their reservation, and were engaged in burning forests, &c. On the 8th of July last he complained to Governor Pitkin that Major Thornburgh paid no attention to his appeals, and that a military force was needed immediately to bring wandering Indians back to the agency and to stop their destruction of timber. This was communicated the same day to General Sheridan, with instructions to take such measures as would accomplish the wishes of the Interior Department. Fort Steele is distant about a hundred and fifty miles from this agency, and had a comparatively small garrison, which was utterly inadequate to such requisitions. On the 18th and 28th of July the Secretary of the Interior transmitted to the War Department similar requests, which were referred "for report" through General Sheridan to General Crook, commanding the Department of the Platte, including Fort Steele. General Crook made report that the Indians complained of, besides killing the game, had committed no depredations; that the post commander, Major Thornburgh, did not receive timely notice of the presence of the Indians, and that it was impossible for the military placed at such a great distance from the agency to prevent the Indians leaving without authority, unless warned in due time by the Indian authorities; that unless troops are stationed at the agencies they cannot know in time when Indians are absent by authority, nor can they prevent the occurrence of troubles for which they are frequently and most unjustly held responsible.

On the 2d of September the Secretary of the Interior transmitted a copy of a report from Mr. Meeker, asking for a military force at the agency; and again on the 15th of September the agent reported that he had been assaulted by Johnson, a leading chief; that his life and the line of his family were not safe, and that he wanted protection immediately. Orders went forthwith to General Sheridan to cause assistance to go to him from the nearest military post. The agency is in Colorado, therefore within the Department of the Missouri, commanded by General Pope, whereas the nearest post was Fort Steele, on the Union Pacific Railroad, in the Department of the Platte, commanded by General Crook. Some delay may have been occasioned by this fact, also by the fact that Mr. Meeker had before only asked that the Indians should be driven back to their agency and prevented from burning timber hundreds of miles away from Fort Steele, and had not until September 15 manifested any special apprehension of personal danger.

These complaints are almost of daily occurrence at the various agencies, and an army of a hundred thousand men would not suffice to respond to all the calls for help, in illustration of which I will mention that within two days an alarm has been sounded from Bayfield, on Lake Superior, by an Indian agent alarmed for the Chippewas, who have been peaceful for thirty years. At that date (September 15) General Pope had a company of the Ninth Cavalry at Sulphur Springs, Middle Park, Colorado, under Captain Dodge, whom he had ordered to the White River agency to "settle matters." About this time much correspondence passed between General Pope, General Sheridan, and myself, in which General Sheridan reported that four companies were already *en route* for the White River Agency from General Crook's department, by reason of the fact that this agency was easier reached from that direction than from General Pope's department, and that he (General Pope) need not take any action in reference thereto. General Sheridan recommended "no action in so far as the military are concerned, except

simply to quell the existing disturbances, and then to await such final decision as may seem best by the Indian Bureau."

The orders to Major Thornburgh, commanding Fort Steele, were made by General Crook, based on indorsements from Army headquarters, and were dated September 16, 1879, "to move with a sufficient number of troops to the White River Ute Agency, Colorado, under special instructions."

Major Thornburgh moved from Fort Steele, September 21, 1879, with the effective strength of three companies of cavalry and one of infantry, about two hundred men, with rations for thirty days and forage for fifteen days; a force which was considered by everybody as sufficient for the purpose. Mr. Meeker had only asked for one hundred men. Major Thornburgh reported back from a camp on Bear River, under date of September 26, that he had met some Ute chiefs who seemed friendly, and promised to go with him to the agency. "They say they did not understand why we had come," and he did not anticipate trouble. With a knowledge now of the result, and to throw as much light on the immediate cause of this war as possible, I give the last letters which passed between Major Thornburgh and Mr. Meeker; and I will here record my judgment that Major Thornburgh was an officer and gentleman of whom the Army has reason to be proud; he was young, ardent, ambitious, of good judgment, and no man could have done better in life or met death with more heroism:

HEADQUARTERS WHITE RIVER EXPEDITION,
Camp on Fortification Creek, September 25, 1879.

SIR: In obedience to instructions from the General of the Army, I am *en route* to your agency, and expect to arrive there on the 29th instant, for the purpose of affording you any assistance in my power in regulating your affairs, and to make arrests at your suggestion, and to hold as prisoners such of your Indians as you desire, until investigations are made by your department.

I have heard nothing definite from your agency for ten days, and do not know what state of affairs exists, whether the Indians will leave at my approach or show hostilities. I send this letter by Mr. Lowry, one of my guides, and desire you to communicate with me as soon as possible, giving me all the information in your power, in order that I may know what course I am to pursue.

If practicable, meet me on the road at the earliest moment.

Very respectfully, your obedient servant,

T. T. THORNBURGH,
Major Fourth Infantry, Commanding Expedition.

MR. MEEKER, Indian Agent, White River Agency, Colo.

WHITE RIVER AGENCY, COLO., September 27, 1879.

SIR: Understanding that you are on the way hither with United States troops, I send a messenger, Mr. Eskridge, and two Indians, Henry (interpreter) and John Ayersly, to inform you that the Indians are greatly excited, and wish you to stop at some convenient camping place, and then that you and five soldiers of your command come into the agency, when a talk and a better understanding can be had.

This I agree to, but I do not propose to order your movements, but it seems for the best.

The Indians seem to consider the advance of the troops as a declaration of real war. In this I am laboring to undeceive them, and at the same time to convince them they cannot do whatever they please. The first object now is to allay apprehension.

Respectfully,

N. C. MEEKER,
Indian Agent.

To Major THORNBURGH,
Or Commander United States Troops between Bear and White Rivers, Colorado.

HEADQUARTERS WHITE RIVER EXPEDITION,
Camp on Williams Fork, September 27, 1879.

SIR: Your letter of this date just received. I will move to-morrow with part of my command to Milk River, or some good location for camp, or possibly may leave

my entire command at this point, and will come in as desired with five men and a guide. Mr. Eskridge will remain to guide me to the agency.

I will reach your agency some time on the 29th instant.

Very respectfully, your obedient servant,

T. T. THORNBURGH,

Major Fourth Infantry, Commanding Expedition.

Mr MEEKER,

United States Indian Agent, White River Agency.

HEADQUARTERS WHITE RIVER EXPEDITION,

Camp on Deer Creek, September 28, 1879.

SIR: I have, after due deliberation, decided to modify my plans as communicated in my letter of the 27th instant in the following particulars:

I shall move with my entire command to some convenient camp near, and within striking distance of, your agency, reaching such point during the 29th. I shall then halt and encamp the troops and proceed to the agency with my guide and five soldiers, as communicated in my letter of the 27th instant.

Then and there I will be ready to have a conference with you and the Indians, so that an understanding may be arrived at and my course of action determined. I have carefully considered whether or not it would be advisable to have my command at a point as distant as that desired by the Indians who were in my camp last night, and have reached the conclusion that under my orders, which require me to march this command to the agency, I am not at liberty to leave it at a point where it would not be available in case of trouble. You are authorized to say for me to the Indians that my course of conduct is entirely dependent on them. Our desire is to avoid trouble, and we have not come for war.

I requested you in my letter of the 26th to meet me on the road before I reached the agency. I renew my request that you do so, and further desire that you bring such chiefs as may wish to accompany you.

I am, very respectfully, your obedient servant,

T. T. THORNBURGH,

Major Fourth Infantry, Commanding Expedition.

Mr. MEEKER,

United States Indian Agent, White River Agency, Colo.

UNITED STATES INDIAN SERVICE,

White River Agency, September 29, 1879—1 p. m.

DEAR SIR: I expect to leave in the morning with Douglas and Serrick to meet you. Things are peaceable, and Douglas flies the United States flag. If you have trouble in getting through the cañon to-day let me know *in* (what) *force*. We have been on guard three nights and shall be to-night, not because we know there is danger, but because there may be. I like your last programme. It is based on true military principles.

Most truly, yours,

N. C. MEEKER,

Indian Agent.

I give these letters entire because I believe that Major Thornburgh acted from beginning to end exactly right. So did Mr. Meeker, and the crimes afterward committed rest wholly on the Indians.

On the 29th of September Major Thornburgh's command was attacked by about 300 well-armed warriors at a most difficult part of the road, about twenty miles north of the agency. Major Thornburgh and ten of his men were killed; three officers and twenty men were wounded, when the command under Captain Payne fell back to the wagons, and made preparations to defend themselves. Captain Payne succeeded in sending a messenger back to the railroad, with a report of the fight—its general results, and a call for assistance. General Crook instantly ordered Col. Wesley Merritt, of the Fifth Cavalry, then at Fort D. A. Russell, with 530 men, by rail to Rawlins, and thence to the relief of this command. By most extraordinary exertions and a hard march, Colonel Merritt reached the beleaguered command on the morning of October 5, and found that Captain Dodge's company of the Ninth Cavalry had most opportunely arrived the day before from the Middle Park.

¹In the original "in force." I think he meant "in *what* force."—W. T. S.

Other troops were hurried forward by Generals Sheridan and Crook, re-enforcing Merritt to about a thousand effectives, when he, after providing for the wounded and dead, pushed on to the agency, which he reached on the 11th, finding it burned down, and the murdered bodies of Mr. Meeker and six employees, having buried three others on the road. The Indians had all gone south toward Grand River, carrying with them Mrs. Meeker, Miss Meeker, Mrs. Price, and her two children.

As soon as the re-enforcements *en route* overtook him, Colonel Merritt began his pursuit south, over mountains impassable to anything but men, horses, and pack animals; but before he had reached the crest of the first mountain, he was overtaken by a dispatch of which the following is a copy :

HEADQUARTERS ARMY OF THE UNITED STATES.

Washington, D. C., October 13, 1879.

General P. H. SHERIDAN,

Commanding Division, Chicago, Ill. :

The honorable Secretary of the Interior has, this 10.30 a. m., called with a dispatch, given at length below, which is communicated for your information, and which should go for what it is worth to Generals Crook and Merritt. The latter, on the spot, can tell if the hostiles have ceased fighting. If so, General Merritt should go in every event to the agency to ascertain the actual condition of facts. All Indians who oppose must be cleared out of the way if they resist. If they surrender their arms and ponies, they should be held as prisoners, to be disposed of by superior orders.

The Secretary of the Interior will send a special agent at once to Ouray, who is believed to be honest and our friend. He may prevent the Southern Utes from being involved, and the Interior Department can befriend him afterward by showing favor to some of his special friends.

But the murderers of the agent and servants must be punished, as also those who fought and killed Major Thornburgh and men.

Please acknowledge receipt.

W. T. SHERMAN, *General.*

[Inclosure by telegraph.]

LOS PINOS INDIAN AGENCY, COLORADO,

October 12, 1879—1.50 p. m.

Employee Brady and escort of Indians, just arrived from White River, reports Utes recognized and obeyed Ouray's order; withdrew, and will fight no more unless forced to do so. If soldiers are now stopped, trouble can be settled by peace commission to investigate facts and let blame rest where it may. This will save life, expense, and distress, if it can be accomplished.

Later, 1.30 p. m. (?)—Runner just from Southern Ute Agency, with letter from agent. Council held; Utes will abide Ouray's request; want peace; will stay at home, and take no part in White River trouble; and request Ouray to inform them of their decision.

STANLEY, *Agent.*

I concur in and indorse the above.

OURAY,
Head Chief of Utes.

HEADQUARTERS MILITARY DIVISION OF THE MISSOURI,

Chicago, Ill., October 13, 1879.

General W. T. SHERMAN,

Washington, D. C. :

Your dispatch of this date this moment received, and will be forwarded immediately to General Crook, with orders to carry out your instructions therein set forth. A copy will also be sent to General Pope.

P. H. SHERIDAN,
Lieutenant-General.

Colonel Merritt construed these dispatches as limiting his action to White River, and accordingly returned to the neighborhood of the burned agency, established his camp, and there awaited the result of

the negotiations begun by order of the honorable Secretary of the Interior.

Whilst so awaiting, Colonel Merritt, on the 20th of October, sent forward two companies of cavalry, under Captain Wessells, and Lieutenant Hall, with a party of scouts to reconnoiter roads toward the summit between White and Grand Rivers. Lieutenant Weir, of the Ordnance, a fine young officer, asked and obtained leave to accompany Lieutenant Hall. When about twenty miles out, Lieutenant Weir and William Humme, chief of scouts, rode to one side to hunt deer, encountered a picket party of Indians. Shots were exchanged, and both Lieutenant Weir and Humme were killed. Their bodies were afterward recovered. This party of Indians have since been met by Mr. Adams, the special agent, and insist they had no purpose to fight; that they were simply watching the movements of Merritt's troops; that Mr. Humme fired first, killing one of their party, when they in turn killed both Humme and Lieutenant Weir. The sad fate of this young officer is specially deplored by a very large circle of friends.

Meantime great alarm pervaded all parts of Colorado, and was spreading to New Mexico and Wyoming. Reports of the wildest character came pouring in from places a thousand miles away from any real danger, but Generals Sheridan, Crook, and Pope, knowing the proclivity of Indians to war, and the intimate relations of the four bands of Utes, numbering 4,164 souls, of whom about 800 are skillful, brave warriors, made immediate preparations for every contingency. Colonel Merritt's force at White River was strengthened to about 1,500 men. Colonel Mackenzie, with six companies of the Fourth Cavalry, was brought rapidly from Fort Clark, Texas, to Fort Garland, Colorado, and re-enforced by other troops belonging to the Department of the Missouri to about 1,500 men, and Colonel Hatch, of the Ninth Cavalry, with about 450 men from New Mexico, was ordered to Fort Lewis, Pagosa, Colo. The following dispatch will show the objects aimed at, and are the "orders" existing at this moment of time:

HEADQUARTERS OF THE ARMY,
Washington, D. C., October 24, 1879.

General P. H. SHERIDAN,
Commanding Division, Chicago, Ill.:

I have received your three dispatches of yesterday, giving account of the killing of Lieutenant Weir and of the strength of your forces at White River, Forts Garland and Lewis.

All these seem strong enough and are well commanded. Let all preparations proceed, and be ready the moment I give the word to pitch in. Should Agent Adams fail in his mission I understand that the civil authorities will stand aside and the military will take absolute control of this whole Ute question and settle it for good and all. Meantime, humanity to the captive women and the friendly Utes, even of the White River Agency, justifies this seeming waste of time.

W. T. SHERMAN, *General.*

All the world now knows that the special agent, General Charles Adams, of Colorado, appointed by the Secretary of the Interior to conduct these negotiations with the hostile Utes, has partially succeeded in his mission; has obtained the surrender of Mrs. and Miss Meeker, Mrs. Price and her two children, who are already safe with their friends. He is now supposed to be again with the hostiles on Grand River, endeavoring to effect the other conditions required of the Utes by the honorable Secretary of the Interior, who is primarily responsible for the entire management of the whole case. I certainly applaud the courage and energy thus far displayed by General Adams, and hope he will fully and completely succeed in his praiseworthy mission, and yet believe that prudence demands that military preparations and precautions shall

not slacken. Thus far we have lost eleven citizens, two officers, and twelve soldiers killed, and 41 wounded. The Indians admit a loss of 39 warriors killed, so that they have not much reason to boast.

It so happened that about the same time some of the Apaches who belonged to the Mescalero Agency, near Fort Stanton, New Mexico, more than six hundred miles south of White River, began a raid upon the ranches and settlements in Southern New Mexico. Major Morrow, of the Ninth Cavalry, is now in pursuit of these Indians, and has subject to his orders about 450 men, but is beyond the reach of the telegraph, so I am unable to give anything definite from him; but these Apaches have no connection whatever with the Utes, have always been restless and mischievous, and only resort to agencies to rest, recuperate, and make ready for the next war. I infer that as soon as winter comes they will return to their agency and be "good."

In the Military Division of the Pacific there are many Indians, most of whom are located on small reservations, so that outbreaks are rare; still in the Department of the Columbia and in Arizona there remain some tribes that are liable to break out at any moment, by reason of the rapid settlements, especially in the upper valley of the Columbia and at the San Carlos Reservation of Arizona. The reports of Generals McDowell and Howard, and of Colonel Willcox, are so full and satisfactory that I need only say that their efforts, supported by their active troops, have maintained a comparative state of peace throughout the past year, and there is good reason to hope that this condition of affairs will have a long duration.

I certainly will approve any action which will improve the habitations and barracks at the remote stations in which our troops are quartered. These are of the most indifferent kind, especially in Southeast Arizona; but the recent extension of the Southern Pacific Railroad will soon enable the quartermasters to transport lumber, brick, &c., so as to convert the present dirty "*Jacals*" into neat and not costly frame buildings. This railroad is now completed from San Francisco to Casas Grandes, about two hundred miles east of Fort Yuma, and I have assurances that it will be extended during this year about eighty miles further to Tucson. At the same time the Atchison, Topeka and Santa Fé Railroad is completed to Las Vegas, N. Mex., and is being pushed toward Albuquerque and Socorro. I do believe the military interests of Arizona will justify the grant of material aid to these railway companies so as to close the existing gap between the two ends and thus complete another transcontinental railroad from the East to San Francisco, via Tucson, Fort Yuma, and Los Angeles. Such a railroad would accomplish more for the settlement of New Mexico and Arizona than any other single enterprise.

MILITARY EDUCATION.

Steam and electricity have brought all parts of the earth into such close relations that we are forced into rivalry with foreign nations in the matter of military education and training, and I believe we have no reason to shrink from the comparison. Whilst other nations claim superiority in military affairs, by reason of larger establishments and greater experience, it so happens that modern guns and breech-loading rifles have, in late years, almost revolutionized the equipment and tactics of armies, and we are fortunately encumbered with but few old prejudices to be unlearned, and are free to adopt what is excellent among the discoveries and improvements of every land. Our Army is small and intended to be a school of instruction, yet it is necessarily divided up

into small garrisons and is so constantly employed in building new posts and cantonments; in making roads, and in other manual labor, that from personal inspection and the reports of inspectors-general, I fear that less time is given to drills and professional instruction than should be the case. This makes more important the theoretical and practical education of the Military Academy at West Point, and of the Artillery School at Fortress Monroe. Therefore I invite special attention to the reports of their Superintendents, Major-General Schofield and Colonel Getty. These institutions are admirably conducted and will compare favorably with similar colleges in Europe, but, as General Schofield well remarks, young graduates are too apt to regard their education as complete when they leave the Academy, whereas, like workmen, they have simply acquired the rudiments and a knowledge of their tools. A post graduate course, or schools of application are needed, of which the Artillery School is a sample, but this is necessarily limited to the few officers and men of that arm of the service who can be spared from their legitimate duties.

Similar schools should be established and maintained for the cavalry and infantry. These have repeatedly been attempted at Forts Leavenworth and Snelling, but no sooner have they been begun than some Indian outbreak has imperatively called away the troops, so that at this time we have nothing of the kind. Books, magazines, and pamphlets in limited quantities are now supplied to each permanent post by the Quartermaster's Department, and every possible encouragement in the way of study, of practice, and observation has been and will be given the troops; but the day must come when schools for infantry and for cavalry will be established, in the nature of a post graduate course, and if possible for instruction in the use of the rifle and the horse before young officers and recruits are pushed into battle and danger. The reports of Generals Hancock and McDowell show that our officers and men have made great progress in rifle-practice, which should be encouraged, and the recent publications of Lieutenant-Colonel Upton, "Armies of Asia and Europe," and of Lieut. F. V. Greene, "Russian Campaigns in Turkey, 1877-'78," show that the Army possesses young officers who study and keep in the foreground of military knowledge.

I also invite attention to the remarks of General Schofield when treating of the modern practice of members of Congress selecting cadets by means of a competitive examination:

This method of selection is highly beneficial. It is, however, liable to one source of injury against which it is important to guard, especially since the method of selection seems likely to become very general, if not universal. While the member of Congress is relieved by this means from the very difficult task of selecting a candidate who shall certainly possess the requisite mental and physical qualifications his responsibility still remains for the moral character of his nominee. Good character and manly deportment are certainly no less important than scholarship and physical health. Bad habits contracted by a young man already twenty or twenty-one years of age are not easily corrected, and they are more likely than any lack of mental ability to bring mortification and disappointment to those who are most interested in his honorable career. If manly character, mental ability, and scholarship can all be given their due weight in the competition for appointments, then only unmixed good may be expected from this method of selection.

Every member of Congress will recognize the truth of this statement, and can instruct the committee appointed by himself to include "moral and manly character" into the scale of excellence for his own guidance.

I also invite attention to his report on the importance and general economy of educating each year at West Point a number of cadets "for the militia of the United States." Should Congress entertain such a proposition I earnestly recommend that each of the thirty military col-

leges now equitably distributed and provided by law with an Army officer as "Professor of the Military Art," be permitted to nominate one cadet each year. I am convinced that such a boon would stimulate these colleges and provide some of the very best possible candidates for the National Military Academy. The average loss to the Army in officers by death, retirement, resignation, and dismissal amounts to about 3 per cent., or sixty per year. With thirty cadets added to each fourth class the number of graduates would average about seventy-five or eighty, and assuming sixty as the annual number needed for the existing national military establishment, we would have about twenty young graduates to be returned annually to their respective States, who would be most useful as instructors for the volunteers and militia. I doubt whether this increase of the corps of cadets would add 10 per cent. to the usual appropriation, and yet the result would be inestimable.

In conclusion, I beg to submit the annual reports of the Adjutant-General and of the Inspector-General of the Army, inviting attention to their several recommendations, and to these I add the reports of Inspectors-General Sackett and Schriver, because they did not come to me in their usual connection with the reports of the general officers on whose staff they were serving, where they properly belong.

I have the honor to be, your obedient servant,

W. T. SHERMAN,
General.

Hon. GEO. W. McCRARY,
Secretary of War.

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manded by Lieutenant-General P. H. Sheridan, headquarters Chicago, Ill., taken from Adjutant-General's Office, 1879.

PRESENT.														ABSENT.						AGGREGATE.									
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post-chaplains.	Military storekeepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regimental staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.	
3	2	2	1	1												18	16	34									16	18	34
4	2	2	6	1	1											12	22	34									22	12	34
		1			1	1				1	1	1	1	3		105	9	114	1	1	1	1	2	4	6	13	107	120	
		1			1	1			1	2	1	1	2		114	10	124		1	3	49	4	53	14	163	177			
		1								2			3		115	6	121		1	2	14	3	17	9	129	138			
		1						1		1			2		63	5	68	1	1	3	11	5	16	10	74	84			
1		1												4	74	6	80	1				1	1	2	7	75	82		
								1	1					4	87	6	93		3	2	101	5	106	11	188	199			
		1						1	1	3				6	260	12	272		3	8	90	11	101	23	350	373			
		1								2				7	205	11	216		2	1	8	3	11	14	213	227			
		1								4	1	1	4		170	11	181	2	1	5	45	8	53	19	215	234			
		1								6				6	202	13	215	1	1	6	68	8	76	21	270	291			
					1			1	1				2		36	5	41		1	2	38	3	41	8	74	82			
													3		66	3	69		3	3	70	6	76	9	136	145			
		1						1	1				3		120	6	126		2	1	31	3	34	9	151	160			
		1								4				6	196	11	207		1	4	30	5	35	16	226	242			
1	1		1				1					1	1		10	6	16	2				5	2	7	8	15	23		
		1						1	2					4	222	8	230		4	8	55	12	67	20	277	297			
										1					38	1	39				2	14	2	16	3	52	55		
		1								3				4	162	8	170	1	1	4	53	6	59	14	215	229			
		1						1	1						44	3	47	1	1	4	60	6	66	9	104	113			
		1						1	1	1	1	3			140	8	148		2	3	37	5	42	13	177	190			
6	8	17	7	1	1	3	4	3	7	36	5	5	66		2,441	170	2,611	5	7	28	62	782	102	884	272	3,223	3,495		
3	1	2	4	1	1										15	16	31									16	15	31	
		1								1			3		109	5	114		2	5	16	7	23	12	125	137			
										1			2		53	3	56				3		3	3	56	59			

C.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICERS.	GARRISONS.		PRESENT.					
			Number of companies.	Regiments.	General officers.	Military Secretary.	Aides-de-Camp.	Adjutant-General's Department.	Inspectors-General.	Bureau of Military Justice.
DEPARTMENT OF TEXAS—Cont'd.										
San Felipe, Tex....	.....	Capt. Charles Bentzoni, 25th Inf.	2	4th Cav. and 25th Inf.						
Fort Brown, Tex...	At Brownsville.....	Maj. C. R. Layton, 20th Inf.	9	8th Cav. and 20th Inf.						
Fort Clark, Tex....	At the head of Las Moras Creek.	Col. R. S. Mackenzie, 4th Cav.	14	4th and 8th Cav., 2d Art., and 20th Inf.						
Fort Davis, Tex....	Near Limpia Creek...	Capt. C. D. Vise, 10th Cav.	6	10th Cav. & 25th Inf.						
Fort Duncan, Tex..	At Eagle Pass.....	Lieut. Col. J. E. Yard, 24th Inf.	4	4th Cav. and 24th Inf.						
Fort Griffin, Tex...	At Maxwell's Rancho.	Capt. J. B. Irvine, 22d Inf.	1	22d Inf.....						
Fort McKavett, Tex.	On San Saba River....	Col. D. S. Stanley, 22d Inf.	5	22d Inf.....						
Fort McIntosh, Tex.	At Laredo.....	Capt. J. C. Gilmore, 24th Inf.	4	8th Cav. and 24th Inf.						
Fort Ringgold, Tex.	At Rio Grande City...	Maj. D. R. Clendenin, 8th Cav.	6	8th Cav. and 24th Inf.						
Fort Stockton, Tex.	At Comanche Springs.	Lieut. Col. M. M. Blunt, 25th Inf.	5	10th Cav. & 25th Inf.						
Fort Concho, Tex..	At junction of Main and North Conchos.	Maj. Anson Mills, 10th Cav.	7	10th Cav. & 25th Inf.						
Total.....	.....	.....	67	.....	1	2	1			
DEPARTMENT OF THE PLATTE.										
Headquarters.....	Fort Omaha, Nebr....	Brig. Gen. George Crook.	...	Department staff.	1	2	1		1	
Fort Omaha, Nebr.	3 miles above Omaha.	Maj. W. T. Gentry, 9th Inf.	2	9th Inf.....						
Fort Sidney, Nebr.	Near Sidney Station..	Maj. C. H. Carleton, 3d Cav.	3	3d Cav. and 9th Inf.						
Fort Robinson, Nebr.	At Red Cloud Agency.	Capt. F. Van Vliet, 3d Cav.	4	3d Cav.....						
Fort McPherson, Nebr.	6 miles south of McPherson Station.	Capt. F. Mears, 9th Inf..	3	3d & 5th Cav. and 9th Inf.						
Fort Hartsuff, Nebr	On north fork of Loup River.	Capt. S. Munson, 9th Inf.	1	9th Inf.....						
Camp Sheridan, Nebr.	At old Spotted Tail Agency.	Capt. E. Crawford, 3d Cav.	1	3d Cav.....						
Fort Fetterman, Wyo.	170 miles from Cheyenne.	Maj. J. W. Mason, 3d Cav.	3	3d Cav. and 4th Inf.						
Fort Laramie, Wyo	Near mouth of Laramie River.	Col. A. G. Brackett, 3d Cav.	4	3d Cav. and 4th Inf.						
Fort McKinney, Wyo.	On north bank of Clear Fork Creek.	Capt. E. Adam, 5th Cav.	7	5th Cav. and 9th Inf.						
Fort D. A. Russell, Wyo.	Near Cheyenne.....	Col. W. Merritt, 5th Cav.	7	5th Cav. and 4th Inf.						
Fort Sanders, Wyo.	On the line of the Union Pacific R. R.	Col. F. F. Flint, 4th Inf..	3	4th Inf.....						
Fort Fred. Steele, Wyo.	.....do.....	Maj. T. T. Thornburgh, 4th Inf.	3	3d Cav. and 4th Inf.						
Fort Washakie, Wyo.	138 miles from Bryan.	Maj. J. J. Upham, 5th Cav.	2	5th Cav.....						
Camp at Cheyenne, Wyo.	.....	1st Lieut. W. F. Norris, 9th Inf.	1	9th Inf.....						
Fort Douglas, Utah.	3 miles east of Salt Lake City.	Col. J. E. Smith, 14th Inf.	6	14th Inf.....						

Military Division of the Missouri, &c.—Continued.

PRESENT.														ABSENT.						AGGREGATE.								
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post-chaplains.	Military storekeepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regimental staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
..	1	..	..	..	..	..	..	..	..	..	2	..	..	1	78	4	82	..	..	3	12	3	15	7	90	97	
1	1	..	..	..	..	..	..	1	1	1	7	..	..	13	379	24	403	..	2	2	4	81	8	89	32	460	492
..	2	..	..	..	..	..	..	1	1	1	6	1	1	10	505	22	527	..	3	8	20	337	31	368	53	842	895
..	1	1	1	1	4	194	8	202	1	1	5	5	144	12	156	20	338	358
..	1	..	..	..	..	..	..	1	1	1	4	1	1	4	193	12	205	1	3	..	3	14	7	21	19	207	226
..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	41	3	44	..	..	..	1	1	1	2	4	42	46
..	1	..	..	..	..	..	1	1	..	..	5	1	1	8	287	18	305	..	..	..	1	10	1	11	19	297	316
..	1	..	..	..	..	..	..	..	..	..	3	..	..	3	227	7	234	..	..	1	4	8	5	13	12	235	247
..	1	..	..	..	..	..	..	1	3	1	3	1	..	5	256	11	267	..	4	3	6	60	13	73	24	316	340
..	1	..	..	1	..	1	..	1	3	..	3	..	..	4	113	10	123	..	1	2	5	123	8	131	18	236	254
..	1	..	..	1	..	..	..	2	3	..	3	..	1	5	177	13	190	2	4	4	8	211	18	229	31	388	419
4	114	4	1	1	2	..	3	3	5	40	2	4	5	63	2,627	156	2,783	418	27	65	1,020	114	1,134	270	3,647	3,917		
4	2	1	4	1	..	..	..	..	..	..	..	..	..	..	11	17	28	..	..	..	..	..	..	..	17	11	28
..	1	..	..	1	..	..	1	1	1	1	1	1	1	3	143	9	152	..	2	1	1	2	4	6	13	145	158
..	1	..	..	..	..	..	1	1	..	..	1	..	..	3	168	6	174	..	1	3	7	4	11	10	175	185	
..	1	..	..	..	..	..	..	..	..	..	2	..	..	3	142	6	148	1	..	2	3	61	6	67	12	203	215
..	1	..	..	..	..	..	..	..	..	..	2	..	..	3	149	6	155	1	..	1	3	6	5	11	11	155	160
..	1	..	..	..	..	..	..	..	..	..	1	..	..	2	33	3	36	..	..	..	..	14	..	14	3	47	50
..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	59	3	62	..	..	1	1	2	2	4	5	61	66
..	1	..	..	..	..	..	..	1	2	..	4	..	..	4	125	8	133	..	1	2	11	3	14	11	136	147	
..	1	..	..	..	..	..	1	1	3	..	1	1	1	3	185	11	196	..	1	1	4	22	6	28	17	207	224
..	1	..	..	..	..	..	..	..	..	..	3	..	..	7	323	11	334	..	4	6	12	10	22	21	335	356	
..	1	..	..	1	1	1	1	7	..	1	1	1	1	9	412	22	434	..	..	5	8	5	13	27	420	447	
..	1	..	..	..	1	..	..	2	..	1	1	1	1	5	158	11	169	1	1	1	1	..	4	4	15	158	173
..	1	..	..	..	..	..	1	2	..	..	2	..	..	2	143	6	149	..	1	..	4	6	5	11	11	149	160
..	1	..	..	..	..	..	..	1	..	..	1	..	..	1	70	3	73	..	2	2	47	4	51	7	117	124	
..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	43	1	44	..	1	1	2	2	4	3	45	48	
..	1	..	..	1	..	1	1	5	..	1	1	1	1	9	290	20	310	..	1	3	9	4	13	24	299	323	

C.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICERS.	GARRISONS.		PRESENT.					
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-general.	Bureau of Military Justice.
DEPARTMENT OF THE PLATTE—Cont'd.										
Fort Cameron, Utah.	At Beaver.....	Lieut. Col. H. Douglas, 14th Inf.	3	14th Inf.....						
Fort Hall, Idaho..	140 miles north of Corinne.	2d Lieut. W. A. Kimball, 14th Inf.	1	14th Inf.....						
Total			54		1	2	1	1		
DEPARTMENT OF DAKOTA.										
Headquarters.....	Saint Paul, Minn....	Brig. Gen. A. H. Terry..		Department staff.	1	3	1	1		
Fort Snelling, Minn.	5 miles below Saint Paul.	Lieut. Col. C. C. Gilbert, 7th Inf.	10	7th Inf.....						
Fort Sisseton, Dak.	On Kettle Lake.....	Capt. C. E. Bennett, 17th Inf.	2	17th Inf.....						
Fort Totten, Dak.	On Devil's Lake.....	Capt. M. McArthur, 17th Inf.	3	7th Cav. and 17th Inf.						
Fort Pembina, Dak.	Near Pembina.....	Capt. E. Collins, 17th Inf.	2	17th Inf.....						
Fort Buford, Dak..	On the Upper Missouri River.	Capt. T. Britton, 6th Inf.	4	6th Inf.....						
Fort A. Lincoln, Dak.	Near Bismarck.....	Lieut. Col. E. Otis, 7th Cav.	7	7th Cav. and 6th & 17th Inf.						
Fort Stevenson, Dak.	On the Upper Missouri River.	Lieut. Col. D. Huston, 6th Inf.	2	6th Inf.....						
Fort Randall, Dak.	75 miles above Yankton.	Lieut. Col. P. Lugenbeel, 1st Inf.	4	1st Inf.....						
Fort Sully, Dak....	220 miles from Springfield.	Maj. C. G. Bartlett, 11th Inf.	2	11th Inf.....						
Fort Yates, Dak...	65 miles south of Bismarck.	Lieut. Col. W. P. Carlin, 17th Inf.	6	7th Cav. and 17th Inf.						
Fort Bennett, Dak.	7 miles above Fort Sully.	Col. W. H. Wood, 11th Inf.	5	11th Inf....						
Fort Hale, Dak....	80 miles above Fort Randall.	Capt. W. E. Dougherty, 1st Inf.	2	1st Inf.....						
Fort Meade, Dak..	14 miles southeast of Deadwood.	Col. S. D. Sturgis, 7th Cav	9	7th Cav. and 1st Inf.						
Fort Assiniboine, Mont.	On Beaver Creek, near Milk River.	Col. T. H. Ruger, 18th Inf	12	2d Cav. and 18th Inf.						
Fort Shaw, Mont..	8 miles north of Helena	Col. J. R. Brooke, 3d Inf..	2	3d Inf.....						
Fort Benton, Mont	143 miles north of Helena.	Capt. E. Moale, 3d Inf....	1	3d Inf.....						
Fort Ellis, Mont...	3 miles from Bozeman.	Maj. J. S. Brisbin, 2d Cav	5	2d Cav. and 3d Inf.						
Fort Missoula, Mont.	At Missoula.....	Lieut. Col. George Gibson, 3d Inf.	4	3d Inf.....						
Fort Keogh, Mont..	At mouth of Tongue River.	Col. N. A. Miles, 5th Inf	14	2d Cav. and 5th Inf.						
Fort Custer, Mont..	At mouth of Little Bighorn River.	Capt. George K. Sanderson, 11th Inf.	7	2d Cav. and 11th Inf.						
Fort Logan, Mont..	18 miles from Diamond City.	Capt. D. Parker, 3d Inf..	1	3d Inf.....						
Total			104		1	3	1	1		
Grand total			290		5	112	5	2	8	

Military Division of the Missouri, &c.—Continued.

PRESENT.														ABSENT.							AGGREGATE.							
Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post-chaplains.	Military storekeepers.	Colomels.	Lieutenant-colomels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subaltarns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regtal staff officers.	Captains.	Subaltarns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
...	1	...	...	...	...	...	1	...	2	...	3	140	7	147	...	1	3	4	4	8	11	144	155
...	...	...	...	...	...	...	...	...	...	...	1	30	1	31	...	1	2	21	3	24	4	51	55
4	214	4	1	...	3	...	4	2	8	34	5	5	60	2,624	151	2,775	3	5	19	44	234	71	305	222	2,858	3,080		
2	3	1	5	1	1	15	19	34	19	15	34		
...	1	1	...	6	1	1	7	294	17	311	2	4	12	174	18	192	35	468	503				
...	...	...	...	...	...	...	...	...	2	...	2	82	4	86	...	2	15	2	17	6	97	103	
...	1	...	...	...	...	...	...	...	3	...	6	174	10	184	1	...	1	10	2	12	12	184	196
...	...	...	...	...	...	...	...	...	2	...	4	90	6	96	...	...	2	...	2	6	92	98	
...	1	...	1	1	...	3	143	6	149	1	3	3	7	43	14	57	20	186	206				
1	1	...	1	...	1	1	1	3	...	3	185	11	196	...	4	10	153	14	167	25	338	363						
...	1	...	...	...	...	...	1	...	...	...	2	46	4	50	...	2	2	47	4	51	8	93	101
...	1	1	...	2	1	1	2	100	8	108	2	2	6	85	10	95	18	185	203				
...	1	...	...	...	...	...	1	...	2	...	1	91	6	97	...	2	6	10	8	18	14	101	115
...	1	...	1	...	...	...	1	1	5	1	9	300	18	318	3	1	2	38	6	44	24	338	362		
...	1	...	...	...	1	...	...	3	...	1	6	220	12	232	1	1	3	5	5	10	17	225	242
...	...	...	...	...	...	...	...	...	2	...	1	80	3	83	...	1	5	1	6	4	85	89	
...	1	...	...	...	1	1	4	...	1	12	399	20	419	1	5	5	86	11	97	31	485	516			
1	1	...	1	1	1	1	8	1	1	14	478	29	507	1	4	8	105	13	118	42	583	625						
...	1	...	...	...	1	...	2	1	1	2	84	8	92	1	...	2	27	3	30	11	111	122			
...	...	...	...	...	1	...	2	...	1	...	2	41	3	44	...	1	...	1	3	42	45			
...	1	...	...	...	...	1	3	...	4	...	4	147	9	156	...	2	6	112	8	120	17	259	276	
...	1	...	...	...	...	1	2	...	3	...	86	7	93	1	2	5	64	8	72	15	150	165		
...	...	...	...	1	1	...	7	1	1	13	514	24	538	1	2	7	12	241	22	263	46	755	801		
...	1	...	...	...	...	...	3	1	1	4	170	10	180	...	3	4	8	223	15	238	25	393	418
...	...	...	...	...	...	...	1	...	2	...	39	3	42	...	...	...	6	...	5	3	44	47	
4	316	5	1	1	3	...	5	8	6	62	7	8	102	3,778	237	4,015	6	17	43	98	1,451	164	1,615	401	5,229	5,630		
21	11	63	20	5	4	11	...	16	16	26	172	2	21	23	291	11,488	730	12,218	18	47	117	269	3,487	451	3,938	1,181	14,975	16,156

D.—Position and distribution of troops in the Military Division of the Atlantic, commanded latest returns on file in the Adju

POSTS.	SITUATIONS.	COMMANDING OFFICERS.	GARRISONS.		PRESENT.				
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Dep't.	Inspectors general.
DEPARTMENT OF THE EAST.				Division staff	1	..	3	..	1
Headquarters	Governor's Island, New York Harbor.	Maj. Gen. W. S. Hancock	..	Department staff.	..	..	..	..	..
Fort Columbus, N. Y.	do	Capt. J. P. Sanger, 1st Art.	2	1st Art.	..	..	..	..	..
Fort Hamilton, N. Y.	At Narrows, New York Harbor.	Capt. William Sinclair, 3d Art.	4	3d Art.	..	..	..	..	..
Fort Wadsworth, N. Y.	do	Maj. H. G. Gibson, 3d Art.	2	3d Art.	..	..	..	..	..
Fort Schuyler, N. Y.	At Throg's Neck.	Capt. G. F. Barstow, 3d Art.	2	3d Art.	..	..	..	..	..
Fort Porter, N. Y.	At Buffalo	Capt. R. H. Hall, 10th Inf.	2	10th Inf.	..	..	..	..	..
Fort Niagara, N. Y.	Near Youngstown	Lt. Col. G. A. De Russy, 3d Art.	1	3d Art.	..	..	..	..	..
Fort Ontario, N. Y.	At Oswego	Capt. F. B. Hamilton, 2d Art.	1	2d Art.	..	..	..	..	..
Madison Barracks, N. Y.	At Sacket's Harbor	Capt. J. R. Kelly, 3d Art.	1	3d Art.	..	..	..	..	..
Plattsburg Barracks, N. Y.	Near Plattsburg	Capt. Lewis Smith, 3d Art.	1	3d Art.	..	..	..	..	..
Fort Trumbull, Conn.	At New London	Lt. Col. J. M. Brannon, 1st Art.	2	1st Art.	..	..	..	..	..
Fort Warren, Mass.	In Boston Harbor	Capt. J. C. White, 1st Art.	1	1st Art.	..	..	..	..	..
Fort Independence, Mass.	do	Maj. C. L. Best, 1st Art.	1	1st Art.	..	..	..	..	..
Fort Preble, Me.	Near Portland	Maj. John Hamilton, 1st Art.	1	1st Art.	..	..	..	..	..
Fort Adams, R. I.	Near Newport	Col. Israel Vogdes, 1st Art.	4	1st Art.	..	..	..	..	..
Fort McHenry, Md.	Near Baltimore	Col. R. B. Ayres, 2d Art.	3	2d Art.	..	..	..	..	..
Washington Arsenal, D. C.	Washington City	Capt. J. C. Breckenridge, 2d Art.	2	2d Art.	..	..	..	..	..
Fort Monroe, Va.	Old Point Comfort	Col. George W. Getty, 3d Art.	5	1st, 2d, 3d, 4th, & 5th Art.	..	..	..	..	..
Fort Wayne, Mich.	Near Detroit	Col. H. B. Clitz, 10th Inf.	4	10th Inf.	..	..	..	..	..
Fort Brady, Mich.	Village of Sault Ste. Marie.	Capt. E. G. Bush, 10th Inf.	2	10th Inf.	..	..	..	..	..
Fort Mackinac, Mich.	Michilimackinac Island	Capt. E. E. Sellers, 10th Inf.	2	10th Inf.	..	..	..	..	..
Total	..	..	43	..	..	..	..	..	..
DEPARTMENT OF THE SOUTH.									
Headquarters	Newport Barracks, Ky.	Brig. Gen. C. C. Angur	..	Department staff.	1	..	2	1	..
Newport Barracks, Ky.	Newport	Capt. W. M. Waterbury, 13th Inf.	1	13th Inf.	..	..	..	..	..
Fort Johnston, N. C.	Smithville	Capt. W. P. Graves, 2d Art.	1	2d Art.	..	..	..	..	..
Saint Augustine, Fla.	..	Lt. Col. F. T. Dent, 5th Art.	2	5th Art.	..	..	..	..	..
Key West Barracks, Fla.	Key West	Capt. F. L. Guenther, 5th Art.	2	5th Art.	..	..	..	..	..
Little Rock, Ark.	..	Capt. Arthur MacArthur, 13th Inf.	3	13th Inf.	..	..	..	..	..

by Maj. Gen. W. S. Hancock, headquarters Governor's Island, New York, taken from the
 tant General's Office, 1879.

PRESENT.											ABSENT.						AGGREGATE.													
Bureau of Military Justice.	Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of engineers.	Ordnance Department.	Post chaplains.	Military storekeepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and regimental staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.	
1	1	1	1	1	1												10	11	21	1					1	1	12	10	22	
	4	3	1	4													2	12	14	1					1	1	13	2	15	
		1										2					80	5	85		4	4	4	4	4	8	9	84	93	
		1										4	1	1	7	189	14	203	1	6	6	7	13	21	195	216				
		1									1	1				2	80	6	86		1	3	1	4	5	10	81	91		
		1										2				3	65	6	71			3	4	3	7	9	69	78		
		1										2				4	54	7	61					5	5	7	59	66		
		1										1				2	45	5	50		1		1	1	1	6	45	51*		
		1										1				2	46	4	50		1	6	1	7	5	52	57			
		1										1				38	1	39		3	2	3	5	4	4	40	44			
		1										1				2	38	4	42		1	1	1	2	5	39	44			
		1										1				3	76	7	83		3	3	3	6	10	79	89			
		1										1				2	33	3	36	1	1	1	2	3	5	6	35	41		
		1										1				2	37	5	42		1	1	1	2	6	38	44			
	1	1										1				42	5	47		2	1	2	3	7	43	50				
	1	1										4	1	1	8	207	16	223		5	2	5	7	21	209	230				
		2										2	1	1	3	169	11	180	1	2	1	6	9	10	19	21	178	189		
		2										2			1	91	3	94		5	4	5	9	8	95	103				
	1	2										1				16	269	25	294		4	3	27	7	34	32	296	328		
		1										3	1	1	6	143	12	155		2	2	5	5	10	17	148	165			
		1										2			5	53	5	58		2	3	2	5	7	56	63				
		2										2			3	53	5	58		1	6	1	7	6	50	65				
	7	3	19	4								36			4	71	1,810	163	1,983	3	6	7	53	92	19	161	232	1,902	2,134	
	3	1	1	3													11	13	24	1					1	1	14	11	25	
		1										1				1	35	3	38		1	2	1	3	4	37	41			
		1										1				1	29	3	32		2	1	2	3	5	30	35			
		1										2				2	58	6	64		4		4	4	10	58	68			
		1										2				2	56	5	61		4	3	4	7	9	59	68			
		1										1				2	64	4	68		2	2	40	4	44	8	104	112		

D.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICERS.	GARRISONS.		PRESENT.				
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Dep't.	Inspectors general.
DEPARTMENT OF THE SOUTH—Cont'd.									
McPherson Barracks, Ga.	Atlanta	Col. H. J. Hunt, 5th Art.	7	5th Art.....					
Camp De Trobriand, Ga.	.....do	Capt. F. E. DeCoursey, 13th Inf.	4	13th Inf.....					
Mount Vernon Barracks, Ala.	Mount Vernon	Capt. G. M. Bascom, 13th Inf.	2	13th Inf.....					
Total .....	.....	.....	22	.....	1	2	1		
Grand total .....	.....	.....	65	.....	2	5	1	1	

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 10, 1879.

E.—Position and distribution of troops in the Military Division of the Pacific, commanded by
returns on file in the

POSTS.	SITUATIONS.	COMMANDING OFFICERS.	GARRISONS.		PRESENT.			
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp	Adjutant-General's Department.	Inspectors-general.
DEPARTMENT OF CALIFORNIA.								
Headquarters	Presidio, San Francisco, Cal.	Maj. Gen. Irvin McDowell.	...	Department staff.	...	...	...	...
Presidio, Cal.	At San Francisco	Capt. H. C. Hasbrouck, 4th Art.	2	4th Art. ....	...	...	...	...
Angel Island, Cal. .	In San Francisco Harbor	Col. Wm. H. French, 4th Art.	2	4th Art. ....	...	...	...	...
Alcatraz Island, Cal.	do	Capt. H. C. Cushing, 4th Art.	2	4th Art. ....	...	...	...	...
Benicia Barracks, Cal.	At Benicia	Col. A. V. Kautz, 8th Inf.	3	8th Inf. ....	...	...	...	...
Fort Bidwell, Cal. .	In Surprise Valley	Lt. Col. J. D. Wilkins, 8th Inf.	2	1st Cav. and 8th Inf.	...	...	...	...
Fort Gaston, Cal. ...	In Hoopa Valley	Maj. H. R. Mizner, 8th Inf.	1	8th Inf. ....	...	...	...	...
Fort Point, Cal.	In San Francisco Harbor	Capt. Jno. Egan, 4th Art.	2	4th Art. ....	...	...	...	...
Point San José, Cal.	do	Capt. J. B. Campbell, 4th Art.	1	4th Art. ....	...	...	...	...
Fort Halleck, Nev	12 miles south of Halleck Station.	Capt. J. N. Andrews, 8th Inf.	2	1st Cav. and 8th Inf.	...	...	...	...
Fort McDermit, Nev.	80 miles north of Winnemucca.	Capt. A. W. Corliss, 8th Inf.	1	8th Inf. ....	...	...	...	...
Total			18					
DEPARTMENT OF THE COLUMBIA.								
Headquarters	Vancouver Barracks, Wash.	Brig. Gen. O. O. Howard .	...	Department staff.	1	2	1	...
Vancouver Barracks, Wash.	18 miles north of Portland, Oreg.	Lt. Col. Alex. Chambers, 21st Inf.	4	21st Inf. ....	...	...	...	...
Fort Canby, Wash. .	At mouth of Columbia River.	Capt. Arthur Morris, 4th Art.	1	4th Art. ....	...	...	...	...
Fort Colville, Wash	In Colville Valley	Capt. H. C. Cook, 2d Inf.	3	1st Cav. and 2d Inf.	...	...	...	...
Fort Walla Walla, Wash.	At Walla Walla	Capt. Moses Harris, 1st Cav.	5	1st Cav. ....	...	...	...	...
Fort Townsend, Wash.	Near Port Townsend	1st Lieut. H. H. Pierce, 21st Inf.	2	21st Inf. ....	...	...	...	...
Fort Lapwai, Idaho	12 miles from Lewiston.	Capt. W. F. Spurgin, 21st Inf.	4	1st Cav., 2d and 21st Inf.	...	...	...	...
Fort Coeur d'Alene, Idaho.	Near Spokane Falls	Col. Frank Wheaton, 2d Inf.	3	2d Inf. ....	...	...	...	...
Boise Barracks, Idaho.	Near Boise City	Capt. Patrick Collins, 21st Inf.	2	1st Cav. and 21st Inf.	...	...	...	...
Camp Howard, Idaho.	Near Mount Idaho	2d Lieut. E. T. Earle, 2d Inf.	3	1st Cav. and 2d Inf.	...	...	...	...
Fort Harney, Oreg. .	60 miles south of Cañon City.	Capt. Thomas Drury, 2d Inf.	2	2d and 21st Inf.	...	...	...	...
Fort Stevens, Oreg.	Near mouth of Columbia River.	Capt. C. B. Throckmorton, 4th Art.	1	4th Art. ....	...	...	...	...
Fort Klamath, Oreg	Near Lake Klamath	Capt. S. G. Whipple, 1st Cav.	2	1st Cav. and 21st Inf.	...	...	...	...
Total			32		1	2	1	...

Maj. Gen. Irvin McDowell, headquarters Presidio, San Francisco, Cal., taken from the latest Adjutant-General's Office, 1879.

PRESENT.													ABSENT.						AGGREGATE.										
Bureau of Military Justice.	Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post chaplains.	Military storekeepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and reg'tal staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
..	2	2	1	1	22	11	33	1	1	1	12	22	34
..	3	3	9	3	1	1	1	4	..	4
..	..	1	1	2	2	..	5	104	9	113	..	1	1	1	10	104	114	
..	..	1	1	..	1	..	1	1	1	2	84	8	92	..	2	1	3	7	6	13	14	91	105	
..	2	2	..	2	70	4	74	4	7	4	11	8	77	85	
..	2	1	1	4	153	9	162	..	162	..	1	2	13	3	16	12	166	178	178		
..	..	1	..	..	..	..	1	..	2	..	..	2	109	5	114	1	109	..	1	2	5	4	9	9	114	123	123
..	..	1	..	..	..	..	..	1	1	..	..	1	32	4	36	..	36	..	..	1	14	1	15	5	46	51	51
..	2	..	1	..	..	1	62	3	65	..	65	..	..	5	11	5	16	8	73	81	81		
..	..	1	..	..	..	..	1	..	1	..	..	1	41	3	44	..	44	..	..	2	1	2	3	5	42	47	47
..	2	..	4	..	..	4	103	6	109	..	109	..	1	..	2	1	3	7	105	112	112		
..	1	..	2	2	50	3	53	..	53	6	6	6	6	56	59	59	
..	..	5	3	..	2	..	2	1	1	15	..	2	2	24	808	57	865	1	4	3	20	66	28	94	85	874	959	959	
..	3	1	1	3	1	1	13	14	27	1	1	1	15	13	28	
..	..	1	..	..	..	..	1	..	3	..	1	1	4	167	11	178	2	..	1	4	52	7	59	18	219	237	237
..	..	1	..	..	..	..	1	..	1	..	..	..	36	2	38	..	38	..	..	3	2	3	5	5	38	43	43
..	..	1	..	..	..	..	1	..	1	..	..	3	111	5	116	..	116	..	2	1	31	3	34	8	142	150	150
..	..	1	3	..	1	1	1	1	188	7	195	..	195	..	2	2	6	137	10	147	17	325	342	342	
..	..	1	..	..	..	..	..	2	2	..	..	2	66	3	69	..	69	..	2	1	12	3	15	6	78	84	84
..	..	1	..	..	..	..	4	..	3	..	..	3	182	8	190	..	190	..	..	5	16	5	21	13	198	211	211
..	1	1	1	..	3	3	104	6	110	..	110	..	2	1	2	34	5	39	11	138	149	149	
..	1	..	..	1	1	..	..	1	31	3	34	1	34	1	1	3	70	5	75	8	101	109	109		
..	1	..	1	1	39	1	40	..	40	..	1	3	5	104	9	113	10	143	153	153	
..	1	..	3	..	..	3	72	4	76	..	76	..	1	1	11	2	13	6	83	89	89		
..	..	1	..	..	..	..	1	..	1	..	..	1	33	3	36	..	36	..	..	2	1	2	3	5	34	39	39
..	2	..	2	..	..	2	106	4	110	..	110	..	..	2	5	2	7	6	111	117	117		
..	3	1	8	3	1	1	1	..	1	1	..	18	3	2	24	1,148	71	1,219	4	5	13	35	475	57	532	128	1,623	1,751	1,751

E.—Position and distribution of troops in the

POSTS.	SITUATIONS.	COMMANDING OFFICERS.	GARRISONS.		PRESENT.			
			Number of companies.	Regiments.	General officers.	Military secretary.	Aides-de-camp.	Adjutant-General's Department.	Inspectors-general.
DEPARTMENT OF ARIZONA.								
Headquarters.....	Whipple Barracks, Ariz.	Col. O. B. Willcox, 12th Inf.	...	Department staff.	...	2	1	..
Whipple Barracks, Ariz.	At Prescott	Capt. Thomas Byrne, 12th Inf.	2	12th Inf .....	...	..	..	..
Fort Apache, Ariz.	In White Mountain country.	Maj. M. A. Cochrane, 12th Inf.	3	6th Cav. and 12th Inf.	...	..	..	..
Fort Bowie, Ariz. . .	At Apache Pass	2d Lt. T. A. Touey, 6th Cav.	2	6th Cav .....	...	..	..	..
Fort Grant, Ariz. . .	At foot of Mount Graham	Maj. A. K. Arnold, 6th Cav.	3	6th Cav. and 12th Inf.	...	..	..	..
Fort Lowell, Ariz. . .	Near Tucson	Capt. W. A. Rafferty, 6th Cav.	2	6th Cav .....	...	..	..	..
Fort McDowell, Ariz.	52 miles north of Maricopa Wells.	Capt. J. M. Norvell, 12th Inf.	2	6th Cav. and 12th Inf.	...	..	..	..
Fort Verde, Ariz. . .	38 miles from Prescott ..	Capt. H. C. Egbert, 12th Inf.	4	6th Cav. and 12th Inf.	...	..	..	..
Fort Mojave, Ariz. . .	Near Mojave City	2d Lieut. Henry Johnson, 8th Inf.	1	8th Inf .....	...	..	..	..
Camp Thomas, Ariz.	Near old Fort Goodwin..	Capt. M. H. Stacey, 12th Inf.	2	6th Cav. and 12th Inf.	...	..	..	..
Camp Huachuca, Ariz.	In Huachuca Mountains.	Capt. S. M. Whitside, 6th Cav.	1	6th Cav .....	...	..	..	..
Camp J. A. Rucker, Ariz.	In White River Cañon ..	1st Lieut. J. H. Hurst, 12th Inf.	1	12th Inf .....	...	..	..	..
Fort Yuma, Cal. . . .	At junction of Gila and Colorado Rivers.	1st Lieut. J. McE. Hyde, 8th Inf.	1	8th Inf .....	...	..	..	..
San Diego Barracks, Cal.	At San Diego	Capt. A. T. Smith, 8th Inf	1	8th Inf .....	...	..	..	..
Total .....	.....	.....	25	.....	.....	2	1	..
Grand total ..	.....	.....	75	.....	.....	2	6	3 1

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 10, 1879.

F.—Department of West Point, commanded by Maj. Gen. J. M. Schofield, headquarters West Point, N. Y., 1879.

General officer	1
Aides-de-camp	3
Subsistence Department	1
Medical Department	2
Professors	9
Majors	3
Captains	2
First lieutenants	20
Second lieutenants	11
Sword-master	1
Cadets	281
Enlisted men	285
Commissioned officers, professors, &c ..	53
Aggregate	338

E. D. TOWNSEND,
Adjutant-General.

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 10, 1879.

Military Division of the Pacific, &c.—Continued.

PRESENT.										ABSENT.					AGGREGATE.														
Bureau of Military Justice.	Quartermaster's Department.	Subsistence Department.	Medical Department.	Pay Department.	Corps of Engineers.	Ordnance Department.	Post chaplains.	Military storekeepers.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Regimental chaplains.	Regimental adjutants.	Regimental quartermasters.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	General and staff officers.	Field and reg'tal staff officers.	Captains.	Subalterns.	Enlisted men.	Total commissioned.	Aggregate.	Commissioned officers.	Enlisted men.	Aggregate.
..	1	1	1	1	1	14	8	22	1	1	1	9	14	23
..	..	1	1	1	1	2	..	1	1	1	2	104	6	110	..	1	1	2	7	4	11	10	111	121	
..	..	1	..	..	..	..	..	..	1	2	..	..	..	..	2	126	6	132	..	1	4	47	5	52	11	173	184
..	3	82	3	85	..	1	2	2	56	5	61	8	138	146	
..	..	1	..	..	..	..	..	..	1	2	..	..	..	..	4	110	8	118	..	1	3	53	4	57	12	163	175
..	1	1	1	1	1	..	1	65	6	71	..	4	..	1	17	5	22	11	82	93	
..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	3	90	4	94	..	1	2	33	3	36	7	123	130
..	..	1	..	..	..	..	..	..	..	3	..	..	..	..	4	191	8	199	..	1	4	29	5	34	13	220	233
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	39	1	40	..	1	1	1	2	3	3	40	43
..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	69	3	72	..	1	2	25	3	28	6	94	100
..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	2	77	4	81	..	..	..	6	..	6	4	83	87
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	45	1	46	..	1	2	..	3	3	4	45	49
..	1	41	1	42	1	..	1	..	5	2	7	3	46	49	
..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	2	39	4	43	..	..	..	10	..	10	4	49	53
..	2	1	8	2	1	2	14	..	2	1	27	1,092	63	1,155	2	6	11	23	289	42	331	105	1,381	1,486	
..	7	4	22	9	1	1	3	..	4	2	3	47	..	7	5	3,070	202	3,272	8	15	27	78	830	128	958	330	3,900	4,230	

E. D. TOWNSEND,
Adjutant-General.

REPORT OF THE ADJUTANT-GENERAL.

HEADQUARTERS OF THE ARMY,
 ADJUTANT-GENERAL'S OFFICE,
 Washington, October 20, 1879.

GENERAL: I have the honor to submit the following annual returns for Congress:

Table A.—Organization of the Regular Army.

- B.—Return showing actual strength of the Regular Army.
- C.—Distribution of troops in the Departments of Missouri, Texas, Platte, and Dakota, Division of the Missouri.
- D.—Distribution of troops in the Departments of the East and South, Division of the Atlantic.
- E.—Distribution of troops in the Departments of California, the Columbia, and Arizona, Division of the Pacific.
- F.—Department of West Point.
- G.—Statement of the number of desertions during fiscal year ending June 30, 1879.
- H.—Statement of the number of minors discharged from October 1, 1878, to October 1, 1879.
- I.—Statement of casualties, enlistments, and re-enlistments during the fiscal year ending June 30, 1879.
- K.—Statement of number of patients admitted to the Government Hospital for the Insane from October 1, 1878, to October 1, 1879.

The following is the report upon the recruiting service during the past year:

The depots for infantry at David's Island, New York Harbor, and Columbus Barracks, Ohio, and for cavalry, at Jefferson Barracks, Missouri, have been efficiently maintained, and the locations recently established at those points have proved suitable.

As many rendezvous have been maintained at the most productive points as the extent of the appropriation would admit.

At David's Island it is of pressing importance that additional buildings, and those of a permanent nature, should be provided as soon as practicable. As will be seen by the last annual report, only a few buildings of wood could be erected to house the men after the hasty transfer of the depot from Governor's Island. These are not only inadequate to accommodate the number of men often collected for distribution to regiments, but they are not of the permanent and comfortable character which ought to be erected at a post likely to be maintained for many years. The estimates, accompanied by plans, which will be submitted for appropriate buildings may seem large, but it is believed they will not be found unnecessary or unreasonable.

The system of recruiting maintained for the past few years continues, as reports from the Army show, to be productive of good results. High commendation is given to the character of men generally composing the rank and file. Making due allowance for the fact that want of employment in civil life has induced a better class of men to enlist, there can be no doubt that the care exerted to cause the rejection of unworthy applicants has also had its influence.

At the cavalry depot there are now some few horses fit for exercise in that branch. But the need which is constantly arising for drafting detachments to fill the companies in active or frontier service prevents the detention of recruits long enough in depot to give them even the rudi-

ments of drill as soldiers. In the cavalry service the sending of raw recruits to join companies actually in march is poor economy. Men thus initiated, if not totally worthless from their ignorance of the care and management of horses, can rarely make really good soldiers. Just after the close of the war there existed for a short time a law which enabled the President to keep under instruction in depot three thousand recruits in excess of the Army organization. With this latitude training schools for material for non-commissioned officers were established, and all recruits were taught duties of sentinel and practice in firing, besides the principles of the march, before they joined their companies. Enough was shown of the experiment during the brief period before the law was repealed to demonstrate its beneficial effect on Army discipline and its economical saving in the way of desertion and dishonorable discharge.

Moreover, when the Army is so straightly limited to 25,000 enlisted men, casualties occur at distant posts, the report of which is not received for some time after they occur. It is thus impossible to keep the companies up to the full standard without overrunning the legal number allowed for the whole Army, for the recruits in depot have also to be counted in that number.

In view of these facts, it is greatly to be desired that provision should be made for even one thousand recruits in excess of the standard. Even with this provision it is calculated that there would rarely be in the Army under pay more than 25,000 at any one time.

The number of discharges is somewhat greater than it would otherwise be from the fact that many old soldiers having families have sought to take advantage of any opportunity that might arise to obtain work in civil life, in view of the recent act which forbids women to accompany the troops. It is a question whether the act referred to will really promote the economy or efficiency of the Army. The appointment of authorized laundresses was entirely in the hands of company commanders, within the limit—four to an ordinary-sized company—allowed by law and regulations. They could, if they deemed best, refuse to recognize even one laundress. The effect of the law thus far has been to force out of the service some most worthy old soldiers, with respectable wives whose influence in garrison could not be injurious. The act does not seem to have checked the marrying of soldiers without consent of their commanders, and the fact of being married is often made a pretense for demanding discharge before expiration of enlistment. When this is denied, the soldier becomes restless and discontented.

The rendezvous for the general service are under the supervision of the superintendent general recruiting service, whose headquarters are located in New York City.

Rendezvous have been maintained during the past year at Boston, New York City, Harrisburg, Baltimore, Washington, Cincinnati, Buffalo, Cleveland, Chicago, and Indianapolis. There is also a rendezvous at Saint Louis, but recruiting has been suspended there for the present, as a precautionary measure, during the prevalence of yellow fever. The rendezvous for the Twenty-fourth Infantry, at Nashville, was also closed for the same reason. A rendezvous for the Twenty-fifth Infantry was in operation during a portion of the year, but was closed owing to the limited state of the recruiting fund.

Recruits for the colored infantry regiments are enlisted by the officers of the general recruiting service.

The superintendency and depot for the mounted recruiting service are situated at Jefferson Barracks, Missouri, and rendezvous at Boston, New York, Baltimore, Cincinnati, Buffalo, Chicago, and Saint Louis have been

maintained during the past year, except during a short interval, when it was found necessary to close some of the rendezvous in order to keep the expenses within the limit of the appropriation. The officers of this branch of the service also recruit for colored cavalry.

A rendezvous to recruit for organizations in the Department of Texas has been maintained with fair success at San Antonio, Tex., during the past year, and is still in operation.

Recruiting in the Military Division of the Pacific is conducted under the supervision of the division commander. The rendezvous at San Francisco has been in operation during the past year, and several military posts have also been designated as recruiting stations, but the recruits thus obtained are insufficient to maintain the organizations in that division to their proper standard.

The following depots and rendezvous were inspected by Col. R. C. Drum, assistant adjutant-general, U. S. Army, under instructions contained in letter dated Adjutant-General's Office, October 31, 1878, viz:

The depots at Columbus Barracks, Ohio, and Jefferson Barracks, Missouri, and the rendezvous at Buffalo, N. Y.; Cincinnati, Ohio; Chicago, Ill.; Cleveland, Ohio; Indianapolis, Ind.; New York City, N. Y.; and Saint Louis, Mo.

Respectfully submitted.

E. D. TOWNSEND,
Adjutant-General.

General W. T. SHERMAN,
United States Army.

G.—Statement showing the number of desertions from the United States Army during the fiscal year ending June 30, 1879.

Organization.	No.	Organization.	No.
Engineer Battalion.....	2	9th Infantry	44
Ordnance Corps.....	12	10th Infantry	25
1st Cavalry	107	11th Infantry	18
2d Cavalry	64	12th Infantry	59
3d Cavalry.....	86	13th Infantry	15
4th Cavalry.....	80	14th Infantry	51
5th Cavalry.....	79	15th Infantry	35
6th Cavalry.....	86	16th Infantry	32
7th Cavalry.....	67	17th Infantry	22
8th Cavalry.....	58	18th Infantry	13
9th Cavalry.....	16	19th Infantry	28
10th Cavalry.....	19	20th Infantry	56
1st Artillery.....	30	21st Infantry.....	75
2d Artillery.....	42	22d Infantry.....	22
3d Artillery.....	25	23d Infantry.....	46
4th Artillery.....	27	24th Infantry.....	4
5th Artillery.....	36	25th Infantry.....	4
1st Infantry.....	20	General service.....	124
2d Infantry.....	50	Mounted service.....	61
3d Infantry.....	53	Detachments, West Point.....	4
4th Infantry.....	57	Detachments, Fort Leavenworth..	2
5th Infantry.....	31	General non-commissioned staff...	1
6th Infantry.....	51		
7th Infantry.....	40	Total	1,965
8th Infantry.....	86		

H.—Number of minors discharged from October 1, 1878, to October 1, 1879.

Total number of minors discharged 88

L.—Statement showing casualties, enlistments, and re-enlistments in the United States Army during the fiscal year ending June 30, 1879.

Discharged—	
By expiration of service	2,581
For disability	853
By sentence of general court-martial	413
By civil authority	10
By order	853
Total discharged	4,710
Died	289
Deserted	1,965
Total	6,964
Enlisted—	
Number of enlistments	6,226
Number of re-enlistments	1,108
Total enlisted	7,334

K.—List of persons admitted to the Government Hospital for the Insane, under the orders of the Secretary of War, from October 1, 1878, to October 1, 1879.

Regular Army—	
Commissioned officers	4
Commissioned officers (retired)	2
Enlisted men	29
Enlisted men, late of United States Army	4
Late volunteer service—	
Commissioned officers	2
Enlisted men, from 1861-'66	43
Enlisted men, war of 1812	1
Inmates United States Soldiers' Home	10
Civilians (employés Quartermaster's Department)	1
Military prisoners	1
Total	97

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, October 20, 1879.

SIR: In view of the near approach of the annual meeting of Congress, I beg leave to submit the following in lieu of a report or abstract:

Owing to causes beyond the control of this office, the work in some of the branches has fallen so far behindhand that additional clerks will be necessary to bring it up. The act of Congress granting arrears of pensions has caused a very great increase in the number of new applications. Many persons who have been deterred from taking the trouble to get a pension heretofore, because of the small amount they would receive, have now entered their claims. Again, lapse of time has made men mindful of infirmities which they trace to some incident of their military service years ago, and they make their claims. Independent of the increased number of such claims, they are, from the lapse of time, generally obscure, and require patient and extended research. This office has now in arrears seventeen thousand claims from the Pension and Land Offices, which have accumulated in six months, for the usual reports to be taken from the records.

Careful examination has been made to ascertain whether the requisite

clerks can be transferred from other branches of the office to the ones where these claims are acted on, but it is found that this would be impracticable without creating a similar state of things in those branches.

It is therefore urgently recommended that thirty clerks of class 1 (\$1,200) be added to the number (151) already allowed by law to this office.

The business of the archive office, in which is kept such records as have been obtained of the Southern armies, has become well known, and its usefulness is acknowledged. The necessity for keeping it up is unimpaired. Hitherto the expense of providing stationery and other essential matters has been met without drawing on the appropriation, which is all devoted to salaries of clerks. That is now no longer possible. It is therefore respectfully recommended that the appropriation found in the legislative, executive, and judicial appropriation bill, under the head "For the purpose of examining the rebel archives and having copies furnished for the government," be increased to seven thousand five hundred dollars from six thousand six hundred dollars appropriated last year.

It would be no more than an act of simple justice to Mr. A. P. Tasker, the clerk in charge of that office, to add two hundred dollars per annum to his compensation, in view of the great amount of extra time and intelligent labor he has voluntarily given for several years past in aid of the compilation of the History of the War, for which work, out of office hours and the course of his duties, he has received no manner of remuneration.

The work of codifying the Army Regulations and General Orders, under section 2, act making appropriations for the Army, approved June 23, 1879, confided by you to me, has been progressing with no intermission since the passage of the act, and is in an advanced state of completion. The preparation of the material and arrangement in form has been ably done by Col. W. H. Roberts, aided by Maj. N. H. Camp, whom you assigned to assist me. These gentlemen have shown not only zeal but intelligence of a high order in their difficult task. The larger experience and familiarity with matters of daily occurrence in my official duties enables me to correct any inadvertent inaccuracies and to give the subjects a proper arrangement. I have given very close attention to this matter, and hope early in the winter to submit to you a satisfactory codified system of Regulations.

I have the honor to be, sir, very respectfully, your obedient servant,
E. D. TOWNSEND,
Adjutant-General.

The Hon. GEO. W. McCrary,
Secretary of War.

REPORT OF THE INSPECTOR-GENERAL.

HEADQUARTERS ARMY OF THE UNITED STATES,
INSPECTOR-GENERAL'S OFFICE,
Washington, D. C., October 20, 1879.

SIR: I have the honor to report that during the past year the officers of the Inspector-General's Department have been stationed and employed as follows, namely:

The undersigned has been in charge of the office at these headquarters,

occupied in the various duties pertaining thereto. He has also made special investigations under the orders of the Secretary of War, served as a member of the "Stanley-Hazen court-martial," inspected the accounts of certain disbursing-officers, and made the quarterly inspections of Fort Leavenworth Military Prison, as required by section 1348, Revised Statutes.

Inspector-General Delos B. Sacket has been on duty at the headquarters Military Division of the Missouri. He has been engaged in making numerous investigations and special inspections under the orders of the Lieutenant-General commanding, inspections of national cemeteries and of the accounts of disbursing-officers in the division, not under the orders of the division commander.

Inspector-General Edmund Schriver has been stationed at the headquarters Military Division of the Pacific, under the orders of the major-general commanding, and has also served as president of the board of officers appointed to review the proceedings of the "Hammond court-martial."

Inspector-General Nelson H. Davis has been stationed during the year at the headquarters Military Division of the Atlantic, and has been engaged in making numerous investigations and inspections under the orders of the major-general commanding.

Assistant Inspector-General Roger Jones has continued on duty in this office as my assistant, and, in addition to his regular current duties, has made several investigations and inspections under the orders of the Secretary of War.

Assistant Inspector-General Absalom Baird has during the year been serving at the headquarters Military Division of the Missouri, and has been actively engaged in making inspections, and upon other duty under the orders of the Lieutenant-General commanding.

Assistant Inspector-General Elisha H. Ludington, having been found, by an Army retiring-board, incapacitated for active duty on account of disability incident to the service, was, by direction of the President, by Special Orders No. 74, Adjutant-General's Office, March 27, 1879, retired from active service in conformity to section 1251, Revised Statutes.

The following-named officers have been on duty as acting assistant inspectors-general in the different departments since my last annual report, namely:

Lieut. Col. John S. Mason, Fourth Infantry, in Department of Texas.

Lieut. Col. William B. Royall, Third Cavalry, in Department of the Platte.

Maj. James Biddle, Sixth Cavalry, in Department of Arizona.

Maj. Richard Arnold, Fifth Artillery, in Department of the East.

Maj. Edwin C. Mason, Twenty-first Infantry, in Department of the Columbia.

Captain George B. Russell, Ninth Infantry, in Department of the South.

Maj. John J. Coppinger, Tenth Infantry, was, by Special Orders No. 162, Adjutant-General's Office, July 12, 1879, assigned to duty as acting assistant inspector-general Department of the Missouri, in which capacity he has served since that date.

Col. John Gibbon, Seventh Infantry, was, by Special Orders No. 88, Department of Dakota, July 30, 1878, placed in charge of the Inspector-General's Office at those headquarters, and has recently inspected most of the posts in that Department.

The above-mentioned officers have been engaged in inspection duty, under the orders of their respective department commanders.

Careful examinations have been made, in compliance with the requirements of the act of Congress approved April 20, 1874, of the accounts of all officers of the Army who have disbursed public money during the year. The funds received and expended by the disbursing-officers, with the balances reported by them as due the United States, have been compared and verified by official statements obtained from the Treasury Department and designated depositories.

The reports of these inspections are herewith submitted, ready for transmittal to Congress, as required by the law above referred to.

The annual inspections of National Cemeteries, which, under the provisions of General Orders No. 68, Adjutant-General's Office, July 26, 1876, were required to be made by officers of the Inspector-General's Department, in the course of their tours of inspection, were commenced and continued for this year until the issuance of General Orders No. 61, Adjutant-General's Office, June 18, 1879, which directs that such inspections be dispensed with.

Attention is invited to the custom, believed to be quite common, which makes company commanders, when not serving in the field, the custodians of unnecessarily large quantities of ammunition and sometimes of equipage. The effect of this custom is to incumber the company with unnecessary baggage when required to move, and to make company commanders perform the duties of storekeepers; a duty incompatible with their legitimate functions, and one calculated to impair their efficiency.

In the judgment of the undersigned, the property responsibility of company commanders should at all times be kept as low as possible; and, at all posts remote from depots and arsenals, the necessary supplies of ammunition, equipage, &c., should be kept on hand, in charge of the post quartermaster and ordnance officer, or, in the absence of the latter, in charge of the post commander, as required by paragraph 1420, Army Regulations of 1863, and subject to issue on the orders of the commanding officer.

The past year has been characterized by a marked improvement in the skill of enlisted men in the use of their arms; and it appears, from the inspection reports, that great interest in the acquisition of this important knowledge has been awakened and fostered in nearly every section of the country, and is especially participated in by both officers and soldiers of the Army. This highly important branch of the soldier's practical instruction should be continued to the fullest extent that the appropriations will allow.

During the year, all the barracks, dormitories, workshops, and other buildings pertaining to the military prison at Fort Leavenworth have been completed, exclusively by convict labor, in the most substantial and workmanlike manner, with stone and brick walls, and slate roofs. The barracks and dormitories are roomy and well ventilated, with abundant air space.

The affairs of the establishment are well conducted under the immediate charge of Capt. A. P. Blunt, assistant quartermaster, and supervised by the department commander, General Pope. The convicts are properly disciplined and employed, while they are well fed and treated with humanity and kindness.

The machinery for the manufacture of shoes and boots is ready for operation, and will easily supply all required by the troops.

As the scheme of manufacturing certain army supplies has now been in operation for considerable time at the prison; and as the results already achieved have established, beyond question, the entire feasibility and economy of the experiment, as well as its beneficence in conducting

to the health of the convicts, and instructing them in mechanical occupations that will tend to make them more useful and better citizens when they are released from confinement; and as the buildings afford ample room for extending mechanical work, I very respectfully recommend that measures be inaugurated for the fabrication of other Army supplies, which are now obtained from civilian contractors; and, by thus gradually adding to the articles manufactured here, the establishment will, in time, become nearly, if not altogether, self-sustaining.

The number of prisoners confined in the prison at the date of my last inspection, September 11, 1879, with the character of their offenses, were as follows :

For desertion.....	278
For violation 62d Article of War	41
For theft	12
For mutiny and mutinous conduct	6
For assault with intent to kill	2
Total.....	339

The diminished strength of the companies in the artillery and infantry arms of service, the great dispersion of the troops, and the consequent small garrisons at most of our military posts, with the constant work devolving upon them in building and repairing quarters, and other labor outside of their military duties, have, for the most part, rendered it impracticable to give sufficient instruction in battalion drills or other military exercises, yet a good state of discipline has generally been maintained, and the officers have done all in their power to insure proper instruction; but, owing to the diminutive garrisons, their efforts in this direction have for the most part been thwarted.

As an evidence of this, the last inspection reports made in the Department of the East show that thirteen of the twenty garrisoned posts in that department had, at those dates, an aggregate of only 298 enlisted men, or an average of 23 men to each garrison.

Copies of the annual reports of the inspecting officers for the past year, so far as they have been received, are herewith transmitted. They contain much important information regarding the affairs of the Army, and valuable suggestions regarding modifications in certain details of the service, which are respectfully recommended to favorable consideration.

The attention of the General of the Army is especially invited to the facts presented in Inspector-General Sacket's report upon the subject of extra-duty men, and their lack of instruction in soldierly duties at many military posts. Without instruction in military exercises and in the use of their arms and accouterments, they would be of little use in active field service, and unless company commanders are permitted and required to give such instruction, they cannot, as the Inspector-General says, be held responsible for the discipline and military appearance of their men.

I also beg to ask attention to Inspector-General Sacket's and Davis's remarks regarding the difficulty they have experienced in procuring clerical aid in the performance of their duties. Reports from other Inspectors-General have, from time to time, exhibited the same lack of clerical assistance, and they have often been obliged to perform all their own writing in making their inspections, reports, keeping up their records, &c. This does not appear to the undersigned a proper status upon which to place the officers of this department, who have the rank of colonels and lieu-

tenant-colonels, especially when all officers of every other staff department, even captains, are provided with clerks.

Personal observation, covering a period of many years, has satisfied me that there are no staff-officers who more need clerical assistance, at all times, than those of this department; but it is especially the case when in the field with troops or on tours of inspection that the services of competent and faithful clerks are most essential.

In view of these considerations, I very respectfully suggest that the Quartermaster-General be instructed to embrace in his annual estimates an item of \$6,000 for payment of five first-class clerks for the three colonels and the two lieutenant-colonels of the Inspector-General's Department.

I also solicit careful attention to Inspector-General Davis's excellent report herewith submitted. The facts therein presented upon the subject of target practice with rifle muskets during the past year, and the gratifying results attained as exhibited by him, will be found of great interest to all military men.

It appears that the scores made by the "Army teams" during the recent "International Military Match," at Creedmoor, L. I., were eminently creditable, the twelve best shots tying the leading team; and it is reported by Captain Litchfield, commanding the Atlantic team, that in previous practice this team made a better score than that which took the prize at the International Match.

The following extract from this officer's report, giving the results of the practice of the Atlantic team, will doubtless be read with interest:

* * * The result is highly encouraging when it is remembered that the State teams were composed admittedly of the best veteran military marksmen in the world, thoroughly organized as a team in every particular, and using most perfect weapons and ammunition.

Although the Army teams, from lack of opportunity and organization beforehand, must yield the palm this year to the veteran team of the Empire State, without doubt the equal of any ever organized, the fact remains patent that in individual marksmanship, which is the real measure of merit in the soldier, the superiority of our riflemen cannot now be questioned. * * *

* * * Among the prizes won by the officers and men of the division during the meeting, especial notice is invited to the Great Gold Medal won by Sergeant Blue, Tenth Infantry; the "Military Championship" Gold Badge, by Lieut. G. N. Whistler, Fifth Artillery; and the second prize in the "International Military Match," for the highest aggregate score by any competitor from the United States Army, won by Second Lieut. Thomas J. Clay, Tenth Infantry.

Colonel Davis's recommendations upon this and other subjects are the results of matured experience and careful consideration.

In conclusion, it affords me much gratification to be able to give attestation to the fact, that the inspection reports for the past year show conclusively that the officers of the Army are habitually temperate, and not addicted to gaming or other vicious habits.

The rank and file are enlisted from much more respectable classes than I have ever before known during forty-seven years military service; and the troops generally have evinced a most commendable spirit of emulation in the correct performance of their arduous service in garrison and in the field.

Respectfully submitted.

R. B. MARCY,
Brigadier and Inspector-General.

The ADJUTANT-GENERAL,
United States Army.

INSPECTOR-GENERAL'S OFFICE,
Chicago, September 16, 1879.

GENERAL: I have the honor to submit a copy of my report of an inspection made recently in the district of Montana, in compliance with Special Orders No. 77 (current series) from headquarters Military Division of the Missouri, as a portion of this my annual report.

The money accounts of disbursing officers designated to be inspected by the officers of the Inspector-General's Department stationed at these headquarters, in a communication from Army Headquarters August 4, 1876, has been fully complied with.

The inspection of National Cemeteries, made under similar orders, has been performed and the reports of the inspections forwarded to your office. Numerous investigations and special inspections, ordered from division headquarters, have been made during the year by Lieutenant-Colonel Baird and myself.

I will here respectfully call attention to one or two matters which I deem of some importance to the service.

At many military posts, enlisted men employed on extra-duty in the quartermaster's department are excused from Sunday morning inspections by post-commanders.

I think an order should be issued requiring every man on extra-duty to be present at inspection with his company on Sunday morning, in order that captains may see their men under arms and equipped at least once each week. Whenever an inspector visits a post to make an inspection of the troops, every man possible is turned out, and it frequently happens at these inspections that men are found not in uniform, arms out of order, wearing very long hair, &c., and when the captain's attention is called to this, the chances are he will say, "Sir, this is the first time I have seen this soldier on inspection in four or more months."

A captain cannot be held accountable for the discipline and military appearance of the men of his company unless he can see and have the control of every man of his command occasionally; and at the Sunday morning inspection is the proper and best time for his doing so.

Where the detail for extra-duty is large, as it is at most of our frontier posts, the labor is made very hard on the men who perform the military duties of the garrison; in most cases far more severe than the labor performed by the extra-duty men. I hold it would be no more than just, were one-third of the extra-duty pay of the extra-duty men retained to make up a fund to be expended for the benefit of the men who perform the extra or increased military labor of the post, caused and thrown upon them by these details.

I would recommend that the brake known as the "California Brake" be placed upon all Army wagons purchased for or used in the West. All heavy freight wagons used in the Western Territories have this brake. The teamster is given perfect control of his wagon by means of this brake, without the necessity of his dismounting from his saddle. He could and he would then help his team at many points that he will not do, when compelled to dismount to lock or unlock a wheel. Post blacksmiths could easily place these brakes on the wagons if authorized so to do. The change would result in a great saving on the wear and tear of mule-flesh and of wagons.

From about the first of May, most of my duties have been outside of the office. Lieutenant Colonel Baird has attended to the office-work; he has examined and forwarded all reports received from department and other inspectors.

I dislike to refer again to the subject of a clerk for this office, but it seems strange that a general service or a detailed man cannot be allowed to the office of the inspector-general of a division, while the acting assistant inspectors of the different departments in the division have them.

Very respectfully, your obedient servant,

D. B. SACKET,
Colonel and Inspector General, U. S. A.

To the INSPECTOR-GENERAL,
United States Army, Washington, D. C.

INSPECTION OFFICE, DIVISION OF PACIFIC,
Presidio of San Francisco, September 20, 1879.

GENERAL: In compliance with circulars of December 11, 1867, and of November 2, 1868, from "War Department, Inspector-General's Office," I have the honor to report that during the last past twelve months I have performed the duties, stated and special, pertaining to the station in the Division of the Pacific to which I was assigned by General Orders No. 45 of May 29, 1876 (an enumeration of which in detail it is not deemed necessary to make), except during my absence while required as a witness be-

fore the Fitz-John Porter board of officers in New York City, and as a member of the advisory board of officers assembled in Washington City in the Hammond case.

Besides service on courts and boards, I have attended to the current duties and also inspected certain posts in the Department of California.

In connection with these duties, there are no recommendations to make except such as are embraced in the reports of the inspections referred to above, and which, of course, will reach your office in due time.

Very respectfully, general, your obedient servant,

ED. SCHRIVER,
Inspector-General.

To the INSPECTOR-GENERAL,
War Department.

I.—REPORT OF LIEUTENANT-GENERAL SHERIDAN.

HEADQUARTERS MILITARY DIVISION OF THE MISSOURI,
Chicago, Ill., October 22, 1879.

GENERAL: I have the honor to submit herewith, for the information of the General of the Army, the following report of operations within the limits of my command since October 25, 1878, the date of my last annual report.

The organization of the division remains unchanged and consists of the following departments: The Department of Dakota, which comprises the State of Minnesota and Territories of Montana and Dakota, and is garrisoned by twenty-one permanent posts and four temporary encampments, commanded by Brig. Gen. Alfred H. Terry; the Department of the Platte, consisting of the States of Iowa and Nebraska and the Territories of Wyoming and Utah and a portion of Idaho, garrisoned by seventeen permanent posts, commanded by Brig. Gen. George Crook; the Department of the Missouri, consisting of the States of Illinois, Missouri, Kansas, and Colorado, the Indian and New Mexican Territories, and two posts in Texas, Forts Elliott and Bliss, garrisoned by twenty permanent posts and eight encampments, commanded by Brig. Gen. John Pope; and the Department of Texas, consisting of the State of Texas, which embraces the Mexican frontier, garrisoned by thirteen permanent posts and ten encampments, commanded by Brig. Gen. E. O. C. Ord.

In my last annual report, I called attention to the fact that our forces were too small to properly perform the duties incumbent upon them throughout the vast extent of territory they occupied. The ratio of the force was one man to every seventy-five square miles in the Departments of the Platte, Dakota, and the Missouri; and one man to every one hundred and twenty square miles in the Department of Texas, and there has been no change in that respect up to this time.

The forces of the division are assigned to the several departments as follows: In the Department of Dakota, officers and men, cavalry, 1,538; infantry, 3,649. In the Department of the Platte, cavalry, 1,463; infantry, 1,525. In the Department of the Missouri, cavalry, 1,269; infantry, 2,081. In the Department of Texas, cavalry, 1,817; infantry, 1,787; artillery, 188. The number of permanent posts in the division is seventy-one, which, together with twenty-two temporary encampments, has given us an aggregate of ninety-three stations to provide for during the summer. These posts have been garrisoned by eight regiments of cavalry, aggregating 6,087; four companies of artillery, with an aggregate of 188; nineteen regiments of infantry, with an aggregate

of 9,042, and 200 Indian scouts; making a grand total of 15,517 officers and men.

For the details of the various Indian troubles and movements of troops throughout the division, I refer you to the accompanying reports of the department commanders.

The report of General Terry, commanding the Department of Dakota, is comprehensive, and fully describes the operations in his department, and especially the expedition of Colonel Miles and the beneficial effects arising from it, to which I wish to add a just commendation, by saying that Colonel Miles, in the organization of his column and in his soldierly bearing, has given satisfaction to his superiors, and inspired confidence in the officers and men under his command. When the buffalo again return south of the northern boundary line, they will be followed by the Indians now living north of that line, or at least by their hunting parties, as these Indians are dependent for their main supplies of animal food upon the buffalo herd, and it will be exceedingly difficult to establish any international conditions which will prevent such an invasion of our territory. The number of Indians dependent upon these herds for subsistence aggregate many thousands. I therefore concur with General Terry in his recommendation for the establishment of another large military post about midway between Forts Buford and Assinaboine, and as near to the northern boundary line as the local conditions will permit; and I recommend that an appropriation of \$200,000 be asked for its construction. The rapid progress of the Northern Pacific Railroad will fill up the Northwest with hardy pioneers and emigrants, and the establishment of this new post should take place during the summer of 1880.

The report of General Crook illustrates the condition of affairs in his department. The reference which he makes to the Camp Robinson prisoners I only wish to supplement with the remark, that it is to be regretted that the small number of troops then available did not admit of a larger force at that place at the time of the outbreak, as it might by its presence have sufficiently intimidated the determined and sanguinary savages who were there confined. It is useless for me to speak about the grievances of these Indians; they belong to a system which has obtained for many years. It is enough for me to say that the "poor Indian" fully sustained his cruel nature by making a breastwork of his women and children in resistance to the orders which sent him back to his agency, where he alleges he was pinched with hunger and his people were dying from fever arising from certain climatic conditions of the country. In what occurred at Camp Robinson the troops had no responsibility, they had but to obey orders originating in requests from the Indian Bureau, and the only thing to be regretted is that the occurrence might possibly have been avoided had we had an overwhelming force to meet it; but we had not. It is also to be deplored that the most guilty of the band of Northern Cheyennes which escaped about the same time have not been punished. They murdered men, women, and children in Kansas and have gone free, and this circumstance will be likely to give encouragement to these and other Indians at some future time to attempt the same thing.

In the Department of the Missouri much trouble was occasioned by the attempted invasion of the Indian Territory by squatters, but the prompt action of the President of the United States in giving full authority to the troops to act has resulted in putting a stop for the present to these restless adventurers, and we hope very soon to clear the

Territory of another class of desperate characters, who for a long period have rendered life and property insecure there.

In New Mexico, a band of Apaches, under the Chief Victoria, broke away from their reservation, to which they had gone reluctantly, and the result has been bloodshed, expense, and anxiety. They have killed five soldiers, two scouts, and fifteen or sixteen citizens, including one if not more families of women and children, but to some extent have already been punished by the troops who are still in pursuit. The most recent information from New Mexico, though not yet officially confirmed, goes to show that great destruction to life and damage to property has been committed in the Mesilla Valley by these same Indians, although they are constantly and energetically pursued by our troops. Their tactics being to attack and plunder some given point, then to scatter like quails, and meet again at some other distant point previously understood, for plunder, and again scatter, therefore it is exceedingly difficult for our troops to overtake and punish them. At present, however, the prospect looks fair that they will soon be overtaken and killed or captured.

The recent and unexpected outbreak of the Utes at the White River Agency seems to have been brought about, as far as I can ascertain, by local causes. The Indian agent wished them to engage in farming, and many of them were uncompromisingly hostile to anything in the way of labor which might assist in making them self-supporting. As soon as a knowledge of the trouble was communicated by the Indian Bureau to the military authorities, a force which was deemed more than sufficient by the agent was sent from the nearest post, under command of Major Thornburgh, Fourth Infantry. Before the troops reached the agency, the agent, Mr. Meeker, and most of his employés, were murdered by the Indians, who then came out and attacked Major Thornburgh's force at a point eighteen miles distant from the agency, killing Major Thornburgh and twelve of his men and wounding forty-two others, officers and men. The ground selected by the Indians for this attack was exceedingly favorable to them, and they succeeded in beleaguering the command and held it until it was relieved by Colonel Merritt's command, which was thrown forward with great rapidity to its rescue. The troops under Colonel Merritt then pushed on to the agency without opposition, where they discovered the dead bodies of the agent and his employés. At present a large column of troops is held at White River Agency, another large column is being organized at Fort Garland, and still another in the Animas Valley, pending the action of the Indian Bureau, through its special agent, General Adams; and these troops will be held at these points, awaiting the result of General Adams' negotiations with Chief Ouray for the surrender of the murderers.

The report of Brigadier-General Ord gives a full and interesting account of the status of affairs in his department for the past year.

Nearly all the vexatious conditions which have heretofore existed along the Rio Grande—the boundary line between our country and the Republic of Mexico—have ceased, owing to the active efforts of our own troops and those of the Mexican Government; an earnest and generally successful effort having been made upon both sides of the line to capture and destroy all raiding parties. Small parties of Indians occasionally succeed in evading the troops, and commit robberies and outrages upon the outlying settlements and mail routes; some of these parties at times entering Mexico from our side and others coming from that country into this. It has been pretty well established that most of the raids made by our Indians have their origin on the Fort Stanton Indian Res-

ervation. I have repeatedly called the attention of the authorities to this fact and to the impossibility of stopping them, unless the reservation is placed directly under the control of the military; when, I am satisfied, we would be able to put an end to them.

It will be seen from General Ord's report that the troops in his department have been very active, having marched over 40,000 miles on scouts and in following the trails of raiding parties; and much of the good order which has obtained on the Rio Grande is undoubtedly owing to the energetic movements and general activity of the troops.

There has been no general combination of hostile Indians in this military division during the past year, and I doubt that such combinations can ever again exist. The continuous settlements of the valleys of the Arkansas, the Smoky Hill, the Platte, the Black Hills, and the valley of the Yellowstone; and the construction of the Union Pacific, the Kansas Pacific, the Atchison, Topeka and Santa Fé, and the Northern Pacific Railroads, and their natural connections, following the Indian wars of 1868 and 1876, has thrown too many obstacles in the way for Indian runners to communicate intelligence among the various tribes; and, in addition to this, the great southern buffalo herds, together with the elk, antelope, and deer, upon which they depended to subsist their warriors, are now nearly gone. Therefore, Indian troubles that will hereafter occur will be those which arise upon the different Indian reservations, or from attempts made to reduce the number and size of these reservations, by the concentration of the Indian tribes; and I think I can safely say, in the nature of a warning to the government, that there is great danger at all the agencies of wild Indians where a sufficient military force is not present of scenes occurring similar to those recently enacted at the White River Agency.

Many complaints have been forwarded to the War Department through these headquarters since my last report, showing that there has been an insufficiency of food at some of the Indian agencies within this military division; and hunger will always produce trouble. I have heretofore reported, and desire to reiterate my former statements, that at least the beef ration now allowed the Indians is insufficient, and I believe this may arise from inadequate appropriations made by Congress for this purpose. It should be borne in mind that the vast country lying between the Missouri River and the Rocky Mountains, including Colorado and a portion of New Mexico, has been wrested from the Indians, and that the immense herds of game upon which these Indians formerly subsisted have to a great extent disappeared, and that nearly all the country mentioned is now given up to mining interests, cattle ranches, and general agriculture, and that the annual market value of the mineral and food supplies of this region aggregates hundreds of millions of dollars. It seems to me that such beneficial results as these should induce Congress to furnish the poor people from whom this country has been taken with sufficient food to enable them to live without suffering the pangs of hunger. It should also be remembered that the Indian possesses a nomadic stomach, and heretofore, simply by the pleasures of the chase, he was enabled to put his family beyond the possibility of a want of food; and one can easily imagine how exasperating it must be to a warrior to find himself limited to a meager ration of Texas beef and to see his women and children suffering for food before his eyes.

There is one other source of trouble that I desire to allude to, and that is the removal of the Indians from the localities in which they were born and reared. I have never known it to be done without producing trouble. The Indian is deeply attached to his place of birth, and he

never abandons it except under compulsion, and when that occurs, and his removal is accomplished, it is invariably followed by a home-sickness which is so intense that it frequently terminates fatally. I have no doubt but that the ground-work of the present Colorado trouble arises from a suspicion on the part of the Indians that they are to be deprived of their homes by a concentration in order to make fewer agencies.

It should not be forgotten that there is no established system of government among Indians for the punishment of crime, and the little influence possessed by their chiefs is entirely disregarded whenever in the opinion of the individual Indian his present safety or other interests are threatened; and among communities so loosely governed, composed of men so wild and savage in their nature, we must as a natural sequence expect to be occasionally startled by some most sanguinary outbreaks.

There should always be some power to control or punish. We cannot govern highly civilized communities without at least the force of law to guide and even punish, and much less ought we to expect to control wild Indians without a force to compel obedience to such rules as may be wisely established by the proper authorities for their benefit.

The supply departments throughout the division have worked well and economically, and the officers in control of this important branch of the service are entitled to credit for their services.

The department commanders have faithfully performed their duties, and the line and staff have all done well.

I have the honor to be, General, very respectfully, your obedient servant,

P. H. SHERIDAN,
Lieutenant-General, Commanding.

Brig. Gen. E. A. TOWNSEND,
Adjutant-General of the Army, Washington, D. C.

2. REPORT OF BRIG. GEN. ALFRED H. TERRY.

HEADQUARTERS DEPARTMENT OF DAKOTA,
Saint Paul, Minn., October 1, 1879.

SIR: I have the honor to submit the following report of the military operations which have taken place in this department during the past year:

The last annual report from this department was made on the 4th day of October, 1878. On that date the force in the department consisted of the following troops:

The Second Regiment of Cavalry, four companies of the Third Cavalry, the Seventh Regiment of Cavalry, the First Regiment of Infantry, the Third Regiment of Infantry, the Fifth Regiment of Infantry, the Sixth Regiment of Infantry, the Seventh Regiment of Infantry, the Eleventh Regiment of Infantry, the Seventeenth Regiment of Infantry.

This force was distributed as follows:

At Fort Snelling, Minn., the regimental headquarters, and Companies B, C, E, F, H, and K of the Seventh Infantry.

At Fort Sisseton, Dak., Companies A and F of the Seventeenth Infantry.

At Fort Totten, Dak., Companies C and F of the Seventh Cavalry and Company C of the Seventeenth Infantry.

At Fort Pembina, Dak., Companies E and K of the Seventeenth Infantry.

At Fort Buford, Dak., the regimental headquarters, and Companies C, D, E, F, G, and I of the Sixth Infantry.

At Fort Meade, Dak., Companies E and M of the Seventh Cavalry, and Companies F and K of the First Infantry.

At Fort Abraham Lincoln, Dak., the regimental headquarters, and Companies A, G, H, and L of the Seventh Cavalry, Company B of the Sixth Infantry, and Companies D and G of the Seventeenth Infantry.

At Fort Rice, Dak., Company A of the Sixth Infantry.

At Fort Stevenson, Dak., Companies H and K of the Sixth Infantry.

At Standing Rock Agency (now Fort Yates) Dak., the regimental headquarters, and Companies B, H, and I of the Seventeenth Infantry, and Companies B, D, I, and K of the Seventh Cavalry.

At Cheyenne Agency (now Fort Bennett), Dak., the regimental headquarters, and Companies A, D, E, G, I, and K of the Eleventh Infantry.

At Fort Randall, Dak., the regimental headquarters, and Companies A, C, E, and I of the First Infantry.

At Fort Sully, Dak., Companies D and H of the First Infantry.

At Lower Brulé Agency (now Fort Hale), Dak., Companies B and G of the First Infantry.

At Red Cloud Agency, Dak., Companies E and L of the Third Cavalry.

At Spotted Tail Agency, Dak., Companies H and M of the Third Cavalry.

At Fort Shaw, Mont., the regimental headquarters, and Companies C, E, F, and G of the Third Infantry, and Companies A and I of the Seventh Infantry.

At Fort Benton, Mont., Company A of the Third Infantry.

At Fort Ellis, Mont., Companies F, H, K, and L of the Second Cavalry, and Company G of the Seventh Infantry.

At Camp Baker, Mont. (now Fort Logan), Company D of the Seventh and Company K of the Third Infantry.

At Fort Missoula, Mont., Companies B, D, H, and I of the Third Infantry.

At Fort Keogh, Mont., the regimental headquarters, and Companies A, B, C, D, E, F, G, H, I, and K of the Fifth Infantry, and Companies A, B, E, and I of the Second Cavalry.

At Fort Custer, Mont., Companies B, C, F, and H of the Eleventh Infantry, and the regimental headquarters, and Companies C, D, G, and M of the Second Cavalry.

Since then the following changes of stations of troops in the department have taken place:

In October, 1878, Company D, First Infantry, changed station from Standing Rock Agency to Fort Sully; Company F, Seventeenth Infantry, changed station from Fort Snelling to Fort Sisseton; Companies E and M, Seventh Cavalry, from Fort Lincoln; Company F, First Infantry, from Standing Rock, and Company K, First Infantry, from Fort Sully, changed station to the new post near Bear Butte (Fort Meade, Dak).

In November, 1878, Companies F and G, Third Infantry, from camp on Marias River, and Company C, Third Infantry, from Dauphin Rapids, took station at Fort Shaw.

In November, 1878, the regimental headquarters Seventeenth Infantry were transferred from Standing Rock Agency (Fort Yates) to Fort Totten, and were transferred back to Fort Yates in May, 1879.

In November, 1878, Company C, Seventh Cavalry, changed station from Fort Totten to Fort Lincoln.

In November, 1878, Company I, Seventh Cavalry, arrived at Fort Lincoln from the field and was transferred as part of the regular garrison of that post.

In November, 1878, Company D, Seventh Cavalry, changed station from Fort Lincoln to Standing Rock Agency (Fort Yates).

In November, 1878, Company K, Seventh Cavalry, changed station from Fort Lincoln to Fort Totten.

In November, 1878, Company A, Sixth Infantry, changed station from Fort Rice to Fort Lincoln.

In November, 1878, Company D, Seventeenth Infantry, changed station from Fort Lincoln to Standing Rock Agency (Fort Yates, Dak.).

In December, 1878, Company E, Sixth Infantry, changed station from Fort Randall to Red Cloud Agency, Dak.

In December, 1878, Company A, Eleventh Infantry, changed station from Fort Bennett (late Cheyenne Agency) to Fort Sully.

In December, 1878, Companies E and L, Third Cavalry, left Red Cloud Agency *en route* to Camp Robinson, Nebr.

In April, 1879, Company E, Third Infantry, changed station from Fort Shaw to Fort Ellis.

In May, 1879, Company D, Second Cavalry, changed station from Fort Custer to Fort Ellis.

In May, 1879, Company E, First Infantry, changed station from Red Cloud Agency (abandoned) to Fort Randall.

In June, 1879, the non-commissioned staff, band, and Companies E and G, Seventh Cavalry, changed station from Fort Lincoln to Fort Meade; and in July the regimental headquarters and Companies A and H, Seventh Cavalry, were transferred from Fort Lincoln to Fort Meade.

In June, 1879, Companies F and G, Sixth Infantry, changed station from Fort Buford to Fort Lincoln.

In June, 1879, Company C, Third Infantry, changed station from Fort Shaw to Fort Ellis.

In June, 1879, Company G, Seventh Infantry, from Fort Ellis; D, Seventh Infantry, from Fort Logan, and A and I, Seventh Infantry, from Fort Shaw, left these respective stations, and in July went into camp at the mouth of the Musselshell River, as on detached service at that point, being borne on the returns of the regular garrison of Fort Snelling.

In August, 1879, Company K, Eleventh Infantry, changed station from Fort Bennett to Fort Sully.

In August, 1879, Companies D and H, First Infantry, left Fort Sully for its new station at Fort Meade, arriving there September 9.

In September, 1879, Company E, Eighteenth Infantry, changed station from Coal Banks to Cow Island.

In September, 1879, Company F, Second Cavalry, was ordered to change station from Fort Ellis to Fort Custer.

As the result of these changes the troops in this department are now distributed as follows:

At Fort Snelling, Minn., the regimental headquarters and Companies A, B, C, D, E, F, G, H, I, and K of the Seventh Infantry.

At Fort Sisseton, Dak., Companies A and F of the Seventeenth Infantry.

At Fort Pembina, Dak., Companies E and K of the Seventeenth Infantry.

At Fort Totten, Dak., Companies F and K of the Seventh Cavalry, and Company C of the Seventeenth Infantry.

At Fort Randall, Dak., the regimental headquarters and Companies A, C, E, and I of the First Infantry.

At Fort Hale, Dak., Companies B and G of the First Infantry.

At Fort Sully, Dak., Companies A and K of the Eleventh Infantry.

At Fort Bennett, Dak., the regimental headquarters and Companies D, E, G, and I of the Eleventh Infantry.

At Fort Yates, Dak., the regimental headquarters and Companies B, D, H, and I of the Seventeenth Infantry, and Companies B and D of the Seventh Cavalry.

At Fort Meade, Dak., the regimental headquarters and Companies A, C, E, G, H, and M of the Seventh Cavalry, and Companies D, F, H, and K of the First Infantry.

At Fort Abraham Lincoln, Dak., Companies I and L of the Seventh Cavalry, Companies A, B, F, and G of the Sixth Infantry, and Company G of the Seventeenth Infantry.

At Fort Stevenson, Dak., Companies H and K of the Sixth Infantry.

At Fort Buford, Dak., the regimental headquarters and Companies C, D, E, and I of the Sixth Infantry.

At Fort Keogh, Mont., the regimental headquarters and Companies A, B, C, D, E, F, G, H, I, and K of the Fifth Infantry, and Companies A, B, E, and I of the Second Cavalry.

At Fort Custer, Mont., the regimental headquarters and Companies C, F, G, and M of the Second Cavalry, and Companies B, C, F, and H of the Eleventh Infantry.

At Fort Assinaboine, Mont., the regimental headquarters and Companies A, B, C, D, E, F, G, H, I, and K of the Eighteenth Infantry, and Companies H and L of the Second Cavalry.

At Fort Benton, Mont., Company A of the Third Infantry.

At Fort Shaw, Mont., the regimental headquarters and Companies F and G of the Third Infantry.

At Fort Logan, Mont., Company K of the Third Infantry.

At Fort Ellis, Mont., Companies D and K of the Second Cavalry, and Companies C and E of the Third Infantry.

At Fort Missoula, Mont., Companies B, D, H, and I of the Third Infantry.

Forts Keogh and Custer constitute the District of the Yellowstone, with headquarters at Fort Keogh.

Forts Assinaboine, Benton, Shaw, Logan, Ellis, and Missoula constitute the District of Montana, with headquarters at Fort Assinaboine.

The following tables show the strength of the several garrisons at the date of the last returns received at these headquarters:

Posts.	Officers.	Enlisted men.	Indian scouts.
DISTRICT OF THE YELLOWSTONE.			
Fort Keogh	45	724	67
Fort Custer	30	430	10
	75	1,154	77
DISTRICT OF MONTANA.			
Fort Assinaboine	42	583	.....
Fort Benton	3	42	.....
Fort Shaw	13	100	.....
Fort Logan	3	42	.....
Fort Ellis	13	197	.....
Fort Missoula	13	150	.....
	87	1,114	.....

Posts.	Officers.	Enlisted men.	Indian scouts.
INDEPENDENT POSTS.			
Fort Snelling.....	35	468	
Recruits.....		154	
Fort Sisseton.....	6	95	2
Fort Pembina.....	6	92	
Fort Totten.....	11	180	4
Fort Randall.....	18	185	
Recruits.....		51	
Fort Hale.....	4	83	
Fort Sully.....	7	98	3
Fort Bennett.....	18	215	10
Fort Yates.....	23	330	10
Fort Meade.....	30	445	
Fort Abraham Lincoln.....	23	336	4
Fort Abraham Lincoln, ordnance depot.....	1		
Fort Stevenson.....	7	90	3
Fort Buford.....	21	178	6
	210	3,000	42
GRAND TOTAL.			
District of the Yellowstone.....	75	1,154	77
District of Montana.....	87	1,114	
Independent posts.....	210	3,000	42
	372	5,288	119

The following is a general "record of events" during the year, taken principally from the post returns:

October 6, 1878, about 9 o'clock a. m., sparks from a prairie fire, in the vicinity of Fort Stevenson, were driven by a violent wind into the corral, totally destroying it and a quantity of coal and wood used for fuel. Only by the most strenuous exertions of the command was the post saved from destruction.

Telegraphic information having been received at these headquarters from the division commander that a body of hostile Cheyenne Indians, numbering about 60 men, with their families, were endeavoring to reach the Old Red Cloud Agency, and were being pursued by troops from the Department of the Missouri, preparations were made in this Department to intercept and capture them, provided they should escape the forces in the Department of the Platte; and orders were immediately issued to the commanding officers of the Seventh Cavalry, Red Cloud, Spotted Tail and Cheyenne Agencies, and Fort Randall, to send out at once sufficient force from their respective commands for this purpose. In pursuance of these orders, on the 6th of October, Companies C and L, Third Cavalry (2 officers and 105 men), under command of Capt. P. D. Vroom, Third Cavalry, left Red Cloud Agency, Dak., for the purpose of intercepting the hostile Indians.

The command marched southwest to the South Fork of White River, near the crossing of the Randall road, thence east along the Randall road to the second crossing of the South Fork of White River, and thence west in the direction of Wounded Knee Creek. It returned to its post October 21, having discovered no trails nor indications of hostile Indians. The distance marched was 370 miles.

On the 7th of October Capt. H. W. Wessells, jr., with Lieutenant Baxter, Third Cavalry, 22 men of Company M, Third Cavalry, and 14 Indian scouts, left Camp Rains, Dak. (garrison of Spotted Tail Agency), to operate against the hostile Indians. He marched as far west as Flint Butte, 75 miles distant, and scouted the country as far as Wounded Knee Creek, but neither heard nor saw anything of the Cheyennes.

Captain Wessells returned to his camp October 15, having marched 148 miles.

Also, on the 7th of October, Col. W. H. Wood, Eleventh Infantry, with Companies A, E, and K of that regiment; Company D, First Infantry, from Fort Sully, and 5 Indian scouts, left Cheyenne Agency to defend the Cheyenne River line against the hostile Indians. The command returned to its post October 24, having discovered no signs of Indians. Distance marched, 154 miles.

October 7, Maj. J. G. Tilford, Seventh Cavalry, with 9 companies of the Seventh Cavalry from Camp J. G. Sturgis and Camp Ruhlen, left the former post to intercept the hostile Cheyennes. The command followed the Harney trail as far as Wounded Knee Creek and scouted to the east and west on White River, but discovered no signs of hostile Indians. The command then proceeded to Camp Sheridan, Nebr., and thoroughly scouted the Sand Hills south and southeast of that place.

October 14, Companies A, E, and I, Second Cavalry, under command of Maj. E. M. Baker, Second Cavalry, left Fort Keogh to prevent hostile Indians from crossing the Yellowstone River.

October 25, Capt. T. J. Gregg, with Lieutenant Swigert and all available men of Companies C, D, and M, Second Cavalry, left Fort Custer *en route* to Rosebud Creek to intercept hostile Indians.

The six companies above mentioned returned under command of Major Baker to their respective posts November 14 and 15.

October 24, companies C, F, and I, Sixth Infantry, under command of Capt. J. W. Powell, jr., Sixth Infantry, left Fort Buford by the steamer General Sherman and proceeded as far as Wolf Point to aid in intercepting the hostile Cheyennes. The command returned October 30.

November 21, Sergeant Whelan, Company F, Seventh Infantry, proceeded from Fort Benton to Sun River, Montana Territory, in search of public animals which had strayed from the post, and returned November 23, having traveled 120 miles.

The abandonment of Fort Rice and the Spotted Tail Agency on the Missouri River was effected, the latter on the 24th and the former on the 25th of November. The garrison of Fort Rice, Company A, Sixth Infantry, was transferred to Fort A. Lincoln, and Companies H and M, Third Cavalry, which had been temporarily stationed at the agency, marched for their respective posts in the Department of the Platte.

In December, Red Cloud Agency was abandoned, and the garrison, Companies E and L, Third Cavalry, marched on the 19th for their posts in the Department of the Platte.

December 23, Second Lieut. F. Thies, Third Infantry, with a detachment of 11 men of the Third and Seventh Infantry, left Fort Shaw for the North Fork of Sun River in search of Indians reported to be roaming in that vicinity without authority.

In accordance with the provisions of General Orders No. 79, of 1878, from the Headquarters of the Army, the names of certain posts in this department were changed on the 30th day of December, 1878, and were announced in General Orders No. 9, of that year, from Headquarters Military Division of the Missouri, as follows:

The new post near Bear Butte, Dak., to be hereafter known as Fort Meade.

The post at Standing Rock Agency, Dak., to be hereafter known as Fort Yates.

The post at Cheyenne Agency, Dak., to be hereafter known as Fort Bennett.

The post at Lower Brulé Agency, Dak., to be hereafter known as Fort Hale.

Camp Baker, Mont., to be hereafter known as Fort Logan.

February 16, 1879, Company A, Second Cavalry, and Company F, Fifth Infantry, under command of Capt. S. Snyder, Fifth Infantry, left Fort Keogh for Glendive, Mont., there to watch the crossing of the Yellowstone River, and intercept or capture hostile Indians who were reported to be moving in that direction.

February 22, First Lieut. William Krause, Third Infantry, with 6 enlisted men (mounted), left Fort Benton and proceeded to Fort Claggett, Mont., and to the Crow Indian camp in the vicinity of Armell's Creek, Montana Territory, to recover certain horses stolen from British half-breeds by Crow Indians, and to investigate an alleged complaint made by one Henry P. Brooke against certain River Crows of the Belknap Agency, for killing and mutilating his cattle. The detachment returned to its post April 1, having traveled about 300 miles.

February 23 a battalion of the Seventh Cavalry, under command of First Lieut. A. H. Nave, Seventh Cavalry, left Fort Meade for Rapid City, Dak., in pursuit of a band of hostile Indians, who were reported to have attacked wagon-trains and to have committed other depredations in that vicinity. The command discovered no signs of Indians, except a few pony tracks, and returned to its post February 28, having made a thorough scout in that vicinity. Distance marched by Company E, 206 miles; by Company M, 190 miles.

During the month several scouting parties were sent out from Forts Custer and Keogh to intercept hostile Cheyenne Indians (supposed to be Little Wolf's band) who were committing murders and depredations, and to prevent them from passing the Yellowstone. An expedition under command of First Lieut. W. P. Clark, Second Cavalry, left Fort Keogh, on February 22, 1879, to intercept hostile Cheyenne Indians who were moving north after having committed murders and depredations along their route.

February 27, Company F, Sixth Infantry, at the request of Colonel Miles, Fifth Infantry, left Fort Buford and proceeded up the Yellowstone River as far as Gorham's ranch, there to watch the river with a view to intercept hostile Cheyenne Indians endeavoring to escape northward. The company returned to its station March 12.

March 3, Lieut. S. H. Loder, Seventh Infantry, with 14 enlisted men of Companies K, Third Infantry, and D, Seventh Infantry, left Fort Logan in quest of Ten Doy's band of Bannock Indians, to communicate to him and his band the order of the Interior Department for their removal to Fort Hall. Having accomplished the object of the movement, Lieutenant Loder returned to Fort Logan on the 20th of March, having marched 303 miles.

Captains Mix and Gregg, with Lieutenants Huntington and La Point, Second Cavalry, and Companies D and M of that regiment, marched from Fort Custer March 29 in pursuit of hostile Indians, supposed to be Sioux and other northern Indians, who were raiding in the valley of the Yellowstone. The command returned to Fort Custer on the 9th of April, having followed the trail of the hostiles to the Musselshell, where it became obliterated. The troops were then obliged to return to their post for want of supplies. Distance marched, 125 miles.

April 4, Companies H and L, Second Cavalry, left Fort Ellis to scout the Yellowstone Valley to Young's Point, Mont. Acting Assistant Surgeon R. M. Whiteford, U. S. A., accompanied the command.

April 5, Sergeant Kennedy, Signal Service, U. S. A., and Private

Baader, Company E, Second Cavalry, acting as guide, while on their way from Powder River telegraph station to Fort Keogh, were suddenly fired upon at Mizpah Creek, where they had stopped at noon, by six ambushed Indians. Private Baader was killed at the first fire. Sergeant Kennedy, in endeavoring to reach his horse, was wounded, but hid himself in the brush. The Indians disappeared and returned at night without finding him. They secured the scalp of Private Baader, the two horses of the party, and one revolver. A party from Deadwood, *en route* to Fort Keogh, the next day found and brought the wounded sergeant into that post.

Immediately on the arrival of this party at Keogh, Sergt. Thomas B. Glover, Company B, Second Cavalry, with a detachment of 10 men, Company B, Second Cavalry, 2 Sioux and 1 half-breed scout, left Fort Keogh in pursuit of the Indians who had killed Private Baader and wounded Sergeant Kennedy. He was joined on Mizpah Creek by Corporal Richey, Company I, Second Cavalry, 5 enlisted men, and 2 Cheyenne scouts, also sent out from Fort Keogh. The detachments followed the trail, which led in a southwesterly direction, and, on the 9th, passed through three of the abandoned camps of the Indians, which contained portions of soldiers' clothing and horse equipments. On the 10th, after following an almost obliterated trail, the Indians were overtaken and compelled to surrender, delivering up their arms, ammunition, and ponies. The party consisted of 8 persons—3 men, 4 squaws, and 1 child. The detachment returned to Fort Keogh April 12, having marched about 160 miles.

April 6, First Lieut. F. U. Robinson, Second Cavalry, with 20 enlisted men from Company K, Second Cavalry, left Fort Ellis to scout the country between the Gallatin and Musselshell Rivers in pursuit of hostile Indians and so-called "road agents," reported to have stolen stock in that vicinity.

April 10, Lieut. S. H. Loder, Seventh Infantry, with 18 men of Company K, Third Infantry, and Company D, Seventh Infantry, assisted by some Gros Ventre Indians, left Fort Logan in pursuit of hostile Indians roaming in the vicinity of the Musselshell. On Careless Creek the enemy, consisting of 8 Sioux warriors, supposed to belong to Sitting Bull's camp, was overtaken, and, after a sharp fight, which lasted about an hour and a half, all the Indians were killed. The troops sustained no loss. One Gros Ventre Indian was killed and one Gros Ventre chief was wounded. The command returned to Fort Logan April 21, having marched 225 miles.

April 10, First Lieut. William Krause, Third Infantry, with 19 enlisted men and 2 citizen scouts, left Fort Benton to patrol the Missouri River from that point to the mouth of the Musselshell River. The detachment returned to its post May 7, having traveled about 280 miles.

April 12, First Lieut. George H. Wright, Seventh Infantry, with 3 enlisted men, Second Cavalry, left Fort Ellis as escort to Ten Doys' band of Bannock Indians through the settlements to their reservation and agency at Lemhi, Idaho.

April 15, between 7 and 8 o'clock p. m., the Eighteenth Infantry arrived in Saint Paul *en route* to the new post (Fort Assinaboine) to be established on Beaver Creek, Montana. The regiment left Saint Paul about midnight and arrived in Bismarck on the 17th, where it embarked the same day on the steamers General Sherman, Key West, and Josephine. Two companies were left at the Coal Banks to protect stores and the remaining eight companies arrived at the site of the new post May 9.

April 23, Capt. George L. Tyler, Second Cavalry, with Company F, Second Cavalry, left Fort Ellis to scout the Yellowstone River in the vicinity of Stillwater and establish a temporary camp there, to protect the citizens of that region from hostile Indians and so-called "road agents."

During the month scouting parties were sent out from Forts Missoula, Shaw, and Ellis to scout along the Missoula and Yellowstone Valleys and the country between the Gallatin and Musselshell Rivers and Judith Basin.

May 28, upon the request of the United States Indian agent at the Fort Peck Agency, Poplar River, Montana, Company E, Sixth Infantry, under command of Capt. Thomas Britton, Sixth Infantry, left Fort Buford for that point to prevent a threatened outbreak among the Indians of the agency. Hunger appeared to have been the chief cause of discontent. The company returned to its post July 9.

May 30, Company A, First Infantry, left Fort Randall to escort a party sent out to make a survey of the Rosebud and Pine Ridge Agencies. The company marched on this duty 136 miles.

June 2, First Lieut. J. M. Burns, Seventeenth Infantry, with a detachment of 14 enlisted men of that regiment and one Indian scout, left Fort Sisseton for the James River Valley, to prevent a collision between white settlers and Drifting Goose's band of Sioux Indians. The presence of the troops had the desired effect. The command returned to Fort Sisseton on June 12, having marched about 180 miles.

June 20, Companies A and I, Seventh Infantry, left Fort Shaw under command of Maj. Guido Ilges, and proceeded to Fort Benton, where they were joined by Company D, from Fort Logan, and Company G, from Fort Ellis. The four companies, under the command of Major Ilges, embarked June 30 on board the steamer Benton and proceeded to the mouth of the Musselshell River, where they established a summer camp.

In March last a petition was forwarded by settlers in Southern Montana asking that a summer camp be established at Henry's Lake for their protection against raiding Indians. The locality referred to is in the Department of the Platte; but as it is more easily accessible from Fort Ellis than from any post in that department, I, with the assent of the Lieutenant-General and the commanding general Department of the Platte, caused Company E of the Third Infantry to proceed to the point from Fort Ellis, June 23, and establish the camp as desired.

June 25, in compliance with instructions from Headquarters Military Division of the Missouri, Company I, First Infantry, left Fort Randall to establish a summer camp on the Keya-Paha River for the protection of settlers in Holt County, Nebraska.

Between the 1st and 5th of July a column, under command of Col. N. A. Miles, Fifth Infantry, marched from Fort Keogh for the purpose of operating against hostile Indians in the country north of the Missouri River.

July 6, Company C, Sixth Infantry, left Fort Buford to take post at supply-camp, Fort Peck, Mont.

On the 19th of July, Lieut. John T. Van Orsdale, Seventh Infantry, with a detachment of 8 men, was sent from the camp on the Musselshell, overtook and engaged a party of hostile Indians who had been raiding in that vicinity, killing one and driving the remainder of the party into the Bad Lands.

Scouting parties were sent out during the month from Forts Shaw, Ellis, Logan, and Sully, and were engaged in patrolling Sun River, the south fork of Smith River in Montana, and the Keya-Paha River in Dakota. No hostile Indians were encountered.

Pursuant to instructions from the General of the Army, on the 1st of August a party, consisting of 2 officers and 50 men of the Third Infantry, under command of Capt. W. H. Penrose, Third Infantry, left Fort Missoula for the purpose of reopening the Mullan wagon-road between Fort Missoula and the post of Cœur d'Alene.

August 28, a tornado passed over Fort Keogh at 4 p. m., blowing down a set of company barracks and damaging many more buildings.

September 3, Company D, Sixth Infantry, under command of Second Lieut. George B. Walker, Sixth Infantry, left Fort Buford as escort to a party of half-breed prisoners, captured by Colonel Miles, and ordered to be sent across the line and set at liberty. The company returned to its station September 14.

September 7, a company of the Eighteenth Infantry left the Coal Banks for Cow Island, where it arrived on the 12th, and established a temporary camp for the protection of public property landed at that point.

The movements of the force under Lieut. W. P. Clark, Second Cavalry, which left Fort Keogh on the 22d of February, for the purpose of capturing Little Wolf's band of hostile Cheyennes, then moving north toward the Yellowstone River with the intention of proceeding to join Sitting Bull, deserves much more than the passing notice which it has received in the foregoing narrative of events. The results obtained were so important, and Lieutenant Clark displayed so much energy and zeal, and such admirable judgment in the conduct of the whole affair, that I should do him injustice were I not to set forth particularly all the details of his operations. This can best be done in his own words, and I therefore embody his report in mine. It is as follows :

IN CAMP, FORT KEOGH, MONT.,
April 2, 1879.

SIR: I have the honor to submit the following report in regard to the operations of my command, which secured the capture of Little Wolf's band of Cheyennes, through their surrender on March 25, 1879. On February 22 I was ordered with Companies E and I, Second Cavalry, a detachment of one officer and 20 men and an Artillery squad of one non-commissioned officer and two men, manning a Hotchkiss gun, and four Sioux scouts, to proceed to the vicinity of O'Fallon's Creek, there to establish camp and intercept the hostile Cheyennes. I had for transportation 10 wagons and 40 pack-mules; Sibley tents for the men when with the wagons, shelter-tents when I left them.

The inclosed map exhibits pretty accurately the marches, camps, and scouts made. On my way down I established a picket of one non-commissioned officer and three men on Sheridan Buttes near mouth of Powder River, and after going into camp on Yellowstone near mouth of O'Fallon's Creek, I kept the country actively scouted near head of this creek and also over towards Cabin Creek. I arranged with ranchers and drivers on line of Bismarck and Keogh mail-route to give me promptly any information they might learn.

On February 27, the Yellowstone River suddenly rose some six feet and carried out the ice, though the thermometer had for a day or two previous indicated 33° below zero. This sudden flood compelled me to move to high ground on banks of O'Fallon's Creek.

On March 4, moved back to Powder River for the purpose of crossing rations and forage, the ice having broken in this stream on March 3d, leaving, however, a wide gorge of ice on the banks.

On March 7, two Sioux scouts, with Interpreter Fleury, who had been sent out on Bismarck mail-line from Fort Keogh, reported at my camp, and I detained them with me.

On March 8, I sent two Sioux scouts out to make an extended scout up Powder River to crossing of Black Hills and Keogh road, thence over to the Little Missouri on this road, then to go down this stream, and, if not finding trail before, to scout well towards Slim Buttes. On the 11th they returned to camp at 8 a. m., and reported as having seen some Indians hunting on foot about 50 miles up Powder River. I at once started out three scouts, including one of these who had brought in the report, to go and locate the village and indicate a point at about where I would meet them.

Leaving tents standing with a small guard, taking ten days' rations on packs, and as much forage as possible. I left camp at 12 m., and marched out on Bismarck stage-line some 22 miles, which point I reached just at dark; from here I struck off for the pine bluffs and ridges near Powder River, thus crossing a high plateau of rolling prairie where my command could have been seen at a long distance if I had not crossed at night, and went into camp in a well-concealed position at 11 p. m. The night was intensely dark, and for a time rained heavily, making our progress slow and extremely difficult, and but for the Indian scouts we certainly could have done nothing.

The next day we advanced cautiously, keeping concealed well by winding amongst the bluffs, following ravines, &c., and at 4 p. m. met scouts I had sent out to locate the village, and they reported no signs, and I went into camp. During the night it turned suddenly quite cold and snowed some four inches.

Believing no large body of Indians could have escaped observation from the second scouting party, and that some mistake had been made by the first, the next morning I ordered the command to move slowly back on our trail. I took six of the scouts, giving three of them an extra animal and rations, and thoroughly scoured the country adjacent to the point where the hostiles had been reported as having been seen; finding nothing which justified any further retention of the command I sent Interpreter Fleury and two Indians "I had prepared for the trip" forward to complete the scout first ordered to the Little Missouri, &c., and rejoined my command and reached my tents at Powder River on March 14. During the trip some of the men were slightly frosted, but none seriously injured.

On the 17th, I asked for some Cheyenne scouts, and six were sent me, reaching my camp on the 19th. No suitable interpreter was sent with them. I asked to have one sent, but was informed, for misconduct "Seminole," the only one at Keogh, had been discharged, and would not be re-employed. I sent for him to join me at my personal expense, as I deemed it very important and necessary that a perfect understanding should be had with these Cheyenne scouts. I told them of my orders; that I must capture or kill these hostiles; that possibly, by going with me, they could save their kinsfolk; that if I could surprise them and capture their stock, it might open their ears and they would surrender without fighting; if I could not surprise them, then, when I got very close, they could go into the camp, represent the danger of an engagement, the number of troops out after them, the extreme difficulty of crossing the streams to the north, and the indifferent welcome which they would probably receive from the Sioux; that the hostiles had left their agency in the south for reasons which I did not fully understand and could not explain to them; that it was claimed they had committed atrocities along the line of their march, and I knew some whites had been killed by them; that Little Wolf had been an enlisted scout under my command, and I thought would have confidence in any message he might get from me. I also said I had recommended that these hostiles be allowed to go to the Arapahoe Agency, but I could make no promises in regard to it. I could only say, give up ponies and guns, and I would not fight them. That, if after this understanding, they (the Cheyenne scouts) did not feel they could act earnestly in the matter with me, they could go back to the post.

One of the head-men replied that to shoot at these people (the hostiles) would be like going back and firing at the children in his own lodge; the other, Brave Wolf, said that he was a soldier, and though he had kin in the hostile village, he would do as he was ordered. I desired a perfect understanding with these scouts, as I felt they would be the means through which I must, in any event, at first communicate with the hostiles to secure a surrender either before or after a fight, and I hoped to secure a victory without loss of life, keenly appreciating the fact, however, that a victory gained at the expense of deception would indeed be dearly bought. I had just concluded this talk, or council, when one of the Sioux scouts, who had been sent over to the Little Missouri, came into camp. He told me the hostiles had captured his party on March 20, near mouth of Box Elder Creek; that they had built a little fire to cook coffee, when the grass caught and betrayed them to one of the hostiles who was in the immediate vicinity, and soon they were surrounded and taken into the hostile camp. They lied brilliantly and successfully, and made the hostiles believe they were on their way to Sitting Bull's camp; that they had stolen the government stock, and that they would lead them to a good ford across the Yellowstone, and tell them where they could cross the Missouri, and would make their reception all right with Sitting Bull. The next morning he got one of the hostiles to go out hunting with him, and, at about noon, got away from him, and had ridden fast and hard to bring me the news. He had ridden, in fact, 125 miles in twenty-four hours.

I broke camp at 4 p. m., taking wagons and packs, and marched 22 miles on Bismarck stage-road and went into camp at 11 p. m., and soon after Fleury and the other Sioux scout who had been captured came into camp, having escaped that morning. Fear had also given them good spurs, and they had ridden 90 miles that day.

Believing that the hostiles would at once feel convinced that they had been deceived

and would turn back or press hurriedly forward and try and cross the Yellowstone before I could reach them, I left the wagons at this point, and taking eight days' rations and as much forage as possible, on packs, marched 45 miles. The next day I sent three Cheyenne scouts and two Sioux on to learn what they could about the trail and location of the village.

On March 24, after I had made some 35 miles, I met the two Sioux scouts returning. They reported the trail as turning back and recrossing "Hole in the Rock Creek," and that the three Cheyenne scouts had continued on the trail. I went forward about 10 miles and camped on this creek. My scouts told me that the hostiles had undoubtedly become convinced soon after the escape of the prisoners that troops were in the country after them, and were making for a particularly strong place well known to both the Cheyenne and Sioux Indians. This place may possibly be identical with what is put down on the map as "Hole in the Rock," but it appears nearer the mouth of Box Elder Creek.

The next morning I struck an old camp of the hostiles, two days old, after I had marched some three miles, and about two miles further two of my Cheyenne scouts met me, bringing three of the hostiles with them; said they went into the camp during the night, and had delivered my terms, which the hostiles said they would accept. The three Cheyennes brought to me corroborated this statement but desired me to go into camp where I was, and their village would move over and join me; that if I marched up to their camp the women and children might get frightened, and there might be some trouble. I declined, of course, to do anything of this sort, but selected the two head-men Brave Wolf and Two Moon, of my Cheyenne scouts, to ride on ahead and renew briefly, kindly, and firmly my terms, and bring Little Wolf out to meet me as I approached the village with my command.

This the scouts did, and Brave Wolf added to the message in delivering it, "I love the soldiers at Keogh; I go with them to fight all their enemies, and if you will not listen you will force me to fight my own people, for you are my kinsfolk."

Little Wolf met me about half a mile from his camp, and said he would accept the terms offered by my scouts, and that he was glad to meet me again. I marched my command to within one hundred yards of the village, which was in a natural fortress, and they had strengthened it by breastworks of stone and dirt, and put my forces in the next best and strongest position about there, both for their protection and to attack in case there should be any necessity for such a measure. After about an hour, to allow the excitement to wear away and give my Cheyenne scouts time to talk the matter over with them, I went over to the camp, taking off my arms, to show them that I had confidence in them, and briefly told them in council what they must do, as far as I was concerned. That I had told my scouts to give them no lies, and I hoped they had done so, as I told them; that the guns and ponies must be given up. This was the price of peace, and they must pay it. I wanted the guns then, and would take the ponies when we reached Keogh; that I was truly and heartily glad we had arranged this matter without loss of life on either side; they had ears and sense; they must listen and use their reason; there were many troops and Indian scouts in the country, and I thought they were wise to surrender.

Little Wolf said, in reply, "Since I left you at Red Cloud we have been south, and have suffered a great deal down there. Many have died of diseases which we have no name for. Our hearts looked and longed for this country where we were born. There are only a few of us left, and we only wanted a little ground, where we could live. We left our lodges standing, and ran away in the night. The troops followed us. I rode out and told the troops we did not want to fight; we only wanted to go north, and if they would let us alone we would kill no one. The only reply we got was a volley. After that we had to fight our way, but we killed none who did not fire at us first. My brother, Dull Knife, took one-half of the band and surrendered near Camp Robinson. He thought you were still there and would look out for him. They gave up their guns, and then the whites killed them all. I am out in the prairie, and need my guns here. When I get to Keogh I will give you the guns and ponies, but I cannot give up the guns now. You are the only one who has offered to talk before fighting, and it looks as though the wind, which has made our hearts flutter for so long, would now go down. I am very glad we did not fight, and that none of my people or yours are killed. My young men are brave, and would be glad to go with you to fight the Sioux."

One or two others followed with similar remarks. They were suspicious, and the idea of giving up guns at once startled them, and in the fear of this to them immediate danger, forgot the future, and failed to ask me any questions about staying in the northern country. I therefore held them to the terms as long as I deemed judicious, and then compromised on my wagons as the place of giving up guns, to which they agreed. I felt that from this time out they could camp where I told them, and I could reverse our present position; and though I had no fear whatever of any trouble, I deemed it best to secure this advantage at once. I therefore told them to pack up

and we could move out a short distance this afternoon. We moved about six miles and camped. I issued them some rations, and Dr. Sabin kindly looked after their sick and cared for their wounded; and by the time we reached our wagons, a great deal of confidence had been restored and good feeling nearly established.

At this point they surrendered the following arms: 4 Springfield carbines, caliber 45; 3 Springfield rifles, caliber 50; 4 Sharp's carbines, caliber 50; 1 Sharp's rifle, caliber 50; 4 Sharp's rifles, caliber 45; 1 muzzle-loading rifle; 3 Winchester-Henry repeating carbines, caliber 45; 3 Colt's revolvers, caliber 45; 2 Smith & Wesson revolvers, caliber 45; 5 Colt's revolvers, caliber 44 and 31; and 1 Remington revolver.

They had expended a good deal of ammunition since they surrendered, as I had allowed them to hunt each day. I permitted the matter to rest as though I was perfectly satisfied and convinced that all arms had been given up. I however told some of my scouts to examine privately after arms, and secured the services of Brave Wolf's brother, a young man in Little Wolf's band, to ascertain if any arms had been withheld; none could be found in this way.

On the morning of April 1, about six miles from post I halted the command. I had ordered Lieutenant Tillson with his detachment to remain in rear of the Indians; ordered Lieutenant Kingsbury with his company pretty well out to the right, and company E, Second Cavalry, to the left, thus quietly forming a sort of hollow square, with enlisted scouts in front, and apparently as the accidental result of a halt for the Indians to close up. I then called Little Wolf and all his men to me, and they formed, as usual, in a circle around me, seated on the ground. I told them that the orders were positive and imperative in regard to arms; I had no option in the matter; that I must not only satisfy myself, but I must take such measures as would satisfy those who issued the orders in regard to the terms through which they secured peace. Enumerating the arms surrendered when I reached the wagons, and that it was only natural to suppose that 33 men would have more than 30 stand of arms; that at that time some of them were troubled with suspicions and distrust, and it was perfectly natural they should try and retain some of their arms to protect themselves from the imaginary dangers, and those who had so retained arms must now give them up. They said they had given up all they had. I asked them if they could all arise, throw back their blankets, and show me that none of them had arms on their persons; they said they could, and did. I then had my scouts examine every pack and bundle, and they could find no arms. I had concluded that if they had any pistols they would naturally wear them on the day of reaching the post, as, of course, there would be more or less uncertainty in their minds as to what disposition would be made of them, and that this measure would effect as complete a disarmament as could be secured.

I reached the post at 11 a. m., and camped the two companies with the Indians, awaiting further instructions.

While the command was out the thermometer indicated 33° below zero; it has snowed and rained, and the ice has gone out of the streams, leaving them swollen, difficult and dangerous to ford.

No men were lost, and but two condemned quartermaster's horses abandoned; and the stock generally is in better condition to-day for a long trip than when I left the post.

I desire, in conclusion, to express my sincere thanks to Lieutenant Kingsbury, commanding Company I, Second Cavalry, Lieutenant Tillson, commanding the detachment of 20 men and artillery squad, and Acting Assistant-Surgeon Sabin for the prompt, hearty, and efficient manner in which they have carried out all my orders, performed all duties while on the campaign, the cheerful and uncomplaining way they have endured all its hardships.

I cannot speak too strongly in praise of the prompt and willing way in which the men of the command have performed every duty, and the earnest, sincere, and efficient manner in which the Indian scouts and interpreters, both Sioux and Cheyennes, have aided and assisted the campaign to a successful termination, for without their aid and hearty co-operation, as I have before reported, I could have done nothing.

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

W. P. CLARK,
First Lieutenant Second Cavalry.

POST ADJUTANT,
Fort Keogh, Mont.

HEADQUARTERS FORT KEOGH, MONT.,
April 6, 1879.

SIR: In transmitting the report of Lient. W. P. Clark, Second Cavalry, to department headquarters, I beg leave to call attention to the admirable and successful manner in which the scout was prosecuted by him. It is particularly gratifying at this time, in view of the difficulty which has attended in some cases the manage-

ment of captive Cheyenne Indians, that this band was recaptured without firing a shot.

Very respectfully, your obedient servant,

GEO. GIBSON,
Major Fifth Infantry.

The ASSISTANT ADJUTANT-GENERAL,
DEPARTMENT OF DAKOTA,
Saint Paul, Minn.

I have already called the attention of my superiors to the excellent conduct of Lieutenant Clark, and I desire again to express my obligations to him for his extremely meritorious service.

By far the most important military event which has occurred in the department during the present year is the movement of Colonel Miles from Fort Keogh across the Yellowstone and the Missouri to the British boundary.

A full understanding of the manner in which the movement originated, and of the objects sought to be attained by it, can be best obtained from the following correspondence between the Department of the Interior, the War Department, the General of the Army, the division commander, Colonel Miles, and myself, viz:

DEPARTMENT OF THE INTERIOR,
Washington, May 12, 1879.

SIR: I am in receipt from the Commissioner of Indian Affairs, under date of 10th instant, of a copy of communications, herewith inclosed for your information, dated Fort Peck Indian Agency, Poplar River, Montana, April 19, 1879, from Agent Bird, in which he states that companies of hostile Indians from Sitting Bull's camp are scattered over the entire northern part of that reservation; that the agency Indians complain bitterly of the encroachments of these Indians upon their hunting-grounds; also that the agency buildings and property at Poplar River and Wolf Point are unprotected.

In relation to the danger threatening the agency property at the points named, the Commissioner requests that troops may be furnished for the protection of the goods and property of the agencies as well as for the security of the reservations and the hunting grounds of the Indians and to prevent the destruction of the buffalo and other game necessary for the subsistence of the tribes.

I concur in the request of the Commissioner, and recommend it to the favorable consideration and action of the honorable the Secretary of War.

Very respectfully,

C. SCHURZ,
Secretary.

The Hon. SECRETARY OF WAR.

UNITED STATES INDIAN SERVICE,
FORT PECK INDIAN AGENCY,
Poplar River, Montana, April 19, 1879.

SIR: In a communication I sent you, dated 10th of February last, and in my monthly report for March, dated March 31, I informed you that Sitting Bull's Indians were scattered over the Indian reservation in camps of half a dozen to one hundred lodges from the mouth of Milk River to Wood Mountain police station.

I now have the honor to recur to the same subject, and desire to call your attention in an especial manner to the fact that the companies of hostile Indians from Sitting Bull's camp are now scattered out, occupying the entire northern part of the reservation. Our agency Indians are coming into the agency now daily, and complaining bitterly of the encroachments of these Indians on their hunting grounds. They say they find Uncapapas from Sitting Bull's camp everywhere, driving and scattering the buffalo and other game, so that it has become a matter of real difficulty for them to obtain buffalo enough for their subsistence. They further complain that these Indians steal their horses and run them off over the boundary line.

I believe there is no doubt at all that Sitting Bull is now on American soil, and has been camped south of the boundary line since the middle of February last, and that practically *all his Indians* are now south of our northern boundary, there being, as they claim, no game for their subsistence on the Canadian side.

I call your attention in this special manner to this state of things in regard to these hostile bands of Indians, believing that you would, with a knowledge of the facts before you, call the attention of the proper authorities to the subject, that some attention may be given to the matter, and the Indians and people and property of this Indian agency be protected from their encroachments and possible raids.

A more unprotected condition than now exists of the buildings and property of the

agency, at both Poplar River and Wolf Point, cannot be conceived. Certainly no more property should be delivered and stored at either place without some additional protection is afforded by the proper authorities.

I am, very respectfully, your obedient servant,

W. BIRD,
United States Indian Agent.

Hon. COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.

[First indorsement.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, May 22, 1879.

Official copy respectfully referred to Lient. Gen. P. H. Sheridan, commanding Military Division of the Missouri, for such action as the case calls for, in his judgment.
By command of General Sherman.

E. D. TOWNSEND,
Adjutant-General.

[Second indorsement.]

HEADQUARTERS MILITARY DIVISION OF THE MISSOURI,
Chicago, May 26, 1879.

Respectfully referred to the commanding general Department of Dakota for his information and such action as may seem to him advisable.
By command of Lieutenant-General Sheridan.

GEORGE A. FORSYTH,
Lieutenant-Colonel and A. D. C.

[Telegram.]

HEADQUARTERS DEPARTMENT OF DAKOTA,
Saint Paul, Minn., May 30, 1879.

ADJUTANT-GENERAL DIVISION MISSOURI, *Chicago:*

Referring to the communication from the Interior Department to the War Department regarding the presence on our side of the line of parties from Sitting Bull's camp and the complaints which our own Indians make against them, which was referred to me by you on the 26th instant for such action as might seem to me advisable, I desire to represent to the Lieutenant-General that I see no way of putting an end to the annoyances of which our Indians complain except by organizing a strong column at Fort Keogh and sending it north of the Missouri to clear the country.

This being done, the establishment of a summer camp of moderate size, at the Poplar Creek Agency, would probably keep the country free from intruders. But under existing orders I am not at liberty to take this course.

The Lieutenant-General will doubtless recall the orders given by the General of the Army in February, 1878, when I proposed to send Colonel Miles up to the same region.

I respectfully ask instructions.

TERRY,
Department Commander.

[Telegram.]

CHICAGO, *May 31, 1879.*

General A. H. TERRY,
Saint Paul, Minn.:

Your telegram of yesterday, relative to organizing a column at Keogh to clear the country north of the Missouri of hostile Indians, was received and forwarded for action of the General of the Army in the absence of the Lieutenant-General.

GEO. A. FORSYTH,
Lieutenant-Colonel and A. D. C.

[Telegram.]

CHICAGO, May 31, 1879.

General ALFRED H. TERRY,
*Commanding Department Dakota,
 Saint Paul Minn. :*

The following dispatch just received from the Adjutant-General:
 In the absence of the Lieutenant-General.

GEO. A. FORSYTH,
Lieutenant-Colonel, A. D. C.

"WASHINGTON, D. C., May 31, 1879.

"COMMANDING GENERAL
"Division of the Missouri :

"General of the Army says there is no objection to the course suggested by General Terry in telegram of this date, only we are not now prepared to build posts, or maintain posts, north of the Missouri between the new post Assinaboine and Buford. There is no objection to temporary operations or a temporary cantonment at Poplar Creek Agency.

"E. H. TOWNSEND,
"Adjutant-General."

[Telegram.]

HEADQUARTERS DEPARTMENT OF DAKOTA,
Saint Paul, Minn., June 5, 1879.

Col. N. A. MILES,
Fifth Infantry, Fort Keogh, Mont. :

I have received permission from the General of the Army to send a column north of the Missouri to clear out the stragglers of hostile Sioux which have come across the line to hunt.

Our Indians are complaining of the presence of the intruders. The task will be a difficult and delicate one, for it will be necessary to distinguish most carefully between our Indians and these intruders, and to so conduct operations as to create no alarm among the former. It will be desirable to force the Sioux back rather by a display of force than by actual conflict. I desire you to take command in person. You can take the three companies of cavalry at Custer in addition to all the forces that can be spared from Keogh; also all the transportation at Custer, except what will be needed for post use.

You will need a depot of supplies on the Missouri. This depot will be supplied from Bismarck, and one or two companies of infantry can be sent from Buford to guard it. After driving the Sioux back, it is proposed to establish a summer camp of moderate size at the Poplar Creek Agency.

Consider this communication as strictly confidential, and telegraph to me when you think you can move, what force you can take, and where you would like to have a depot established.

TERRY,
Brigadier-General, Commanding.

I extract from Colonel Miles's report as commander of the district of the Yellowstone the following narrative of his operations under the orders given him :

HEADQUARTERS DISTRICT OF THE YELLOWSTONE,
Fort Keogh, Mont., September —, 1879.

The ASSISTANT ADJUTANT-GENERAL,
Department of Dakota, Saint Paul, Minn. :

SIR: * * * June 5, 1879, I received a telegraphic order from the department commander (based upon a request of the Commissioner of Indian Affairs, and concurred in by the Secretary of the Interior), directing me to take the available force from the District of the Yellowstone and move north of the Missouri, to separate our friendly from the hostile Sioux Indians and to clear out those who had moved south of the boundary line; after driving them back, to establish a summer camp north of the Missouri.

On the 23d of June, preliminary to the movement of the troops, I sent Colonel Whistler to the Poplar Creek Agency to ascertain the cause of trouble there. He reported the Indians almost without food and complaining of the trader's charging

exorbitant prices for his goods. By my direction he crossed the entire Yanktonnais camp of between three and four hundred lodges to the south side of the Missouri.

By executive order, the reservation of this tribe of Indians had been extended south to the Yellowstone; on that part of their reservation they found abundance of game and were at once satisfied.

The tribe of Assinaboines, that have for years been annoyed by the Sioux, were moved south so as to be in rear of the command when it moved north of the Missouri River. Twenty of their number enlisted as scouts; their knowledge of the country was found valuable.

In accordance with the order of the department commander, the command, composed of seven companies of the Second United States Cavalry, and seven companies of the Fifth United States Infantry, a detachment of artillery, and friendly Indians and scouts, with the necessary transportation, left the Yellowstone River at Fort Keogh July 3 and 5, 1879.

On the 10th, 11th, and 12th, this command crossed the Missouri at Old Fort Peck. At that point my force was increased by 98 recruits and two companies of the Sixth United States Infantry; the latter as guard for the supply depot. Completing the equipment of the command for the field, I left Fort Peck on the 15th day of July, with the organization heretofore mentioned, numbering 33 officers, 643 enlisted men, 143 friendly Indians and enlisted scouts, moving north from the Missouri, passing up on the south side of Milk River, and on the 16th reached Campbell's Houses. The same day, the Cheyenne and Crow scouts, under Lieutenant Clark, arrested a party of French half-breeds, and ascertained that some 400 Sioux warriors had been near his camp the day before. The half-breeds falsely reported that there were no Sioux south of Milk River, and that they had all returned to their camp near the Canadian line on Frenchman and Little Rocky Creeks.

On the morning of July 17, 1879, Lieutenant Clark, with a detachment of Indian scouts and Lieutenants Borden's and Hoppin's companies, were sent up Beaver Creek to look for half-breed camps and any signs of hostile Indians, the main command moving four hours later. At 12.30, a report was received from Lieutenant Clark that a party of some 400 hostile Sioux had been discovered about five miles up Beaver Creek and that he was about to engage them.

The impetuous attack of our friendly Indians, followed by the vigorous charge of the troops, resulted in driving the Sioux some 12 miles across the plain between Beaver Creek and Milk River, compelling them to abandon much of their property. When near Old Fort Browning (an abandoned trading-post), the Sioux made a stubborn resistance, and, being re-enforced, for a time pressed the small command from all sides. Lieutenant Clark had, however, taken up a strong position, and as the main command had been moved forward rapidly, the Sioux, under Sitting Bull, fled to the north side of Milk River and in the direction of head of Little Rocky Creek, leaving eight of their dead behind them. This affair was followed by the command crossing Milk River at Old Fort Browning, and moving up Frenchman's Creek west of the trail to the only ford at Old Fort Turney. The trail was then followed to where it crossed the Canadian line near main branch of Little Rocky Creek.

On July 23, 1879, Major Walsh, of the Northwestern Mounted Police, visited my camp immediately south of the line, and was informed of the object of our movement and the occasion of so large a force of troops being on the boundary line, namely, the depredations and trespasses committed by Indians from the Canadian side, and who had been pursued to that point. He stated that he believed no depredations would be committed in the future. After his departure the command moved down Rocky Creek to head of timber.

On the 28th of July, Major Walsh, of the Northwestern Mounted Police, came to my camp, accompanied by a representative of the hostile Sioux named Long Dog, an Uncapapa, who has for years been regarded as a man of much influence among the hostiles. In answer to a question as to "whether the Sioux had chosen their country, and on which side of the boundary they intended to remain," turning to Major Walsh, he said: "We intend to remain with him." Major Walsh stated they had given him the same answer, and told him that they would send out no more war parties. He also assured me that no apprehension need be felt that any hostile movement would be made south of the line. I regarded this as the best results that could have been attained, and the assurance worthy of confidence.

I am gratified to say that up to the present time the promises then and there given have been rigidly adhered to; not a single act of hostility has been committed or a dollar's worth of property stolen by those Indians to my knowledge.

From all the information I have gathered during the past three years from reliable men who have been frequently through their camps, from traders and half-breeds, as well as from American and Canadian officers, the strength of that camp numbers between 6,000 and 8,000 souls, with between 12,000 and 15,000 horses, divided into four large camps: The Uncapapas, under Sitting Bull, Black Moon, Long Dog, and

Pretty Bear; the Minneconjoux, under Black Eagle; the Sans Arcs, under Spotted Eagle, and the Ogallallas, under Big Road or Broad Tail.

As this large body of Sioux is composed of the worst Indians of the Northwest country, I consider the fact of their being driven out and their becoming expatriated by their own acts as more important and satisfactory than would have been their unconditional surrender.

This country is now free from their depredations; we avoid the expense of supplying them with food and clothing, and there need be no difficulty in keeping them out of the country in future.

After the above had been accomplished, a battalion of cavalry, under Major Baker, was dispatched to the junction of Frenchman's Creek and Milk River, with a force under Lieutenant Clark well out to the west. Lieutenant Randall's, Captain Oven-shine's, and Major Gordon's commands were sent east to Porcupine and Poplar Creeks. The commands in one week arrested 829 half-breeds, who were intruders upon our Indian reservation. Their camps had been places of refuge for war and stealing parties and for illegal traffic. Those who belonged north of the Canadian line and were British subjects, together with a small camp of 20 lodges, non-treaty Cree Indians from the Saskatchewan, were sent north of the boundary line; those who belonged in north-western Dakota, near Morehead and Turtle mountains, were sent east to Fort Buford; and the remainder—158—sent south of the Missouri River and located in Judith Basin.

Those sent north of the line have given no further trouble. Those sent to Judith Basin are contented, well pleased with the country, and are anxious to take up land, make themselves homes, and abandon their nomadic life.

Since the return of the command, I have been informed that a part of those sent to Buford were liberated, and that they returned in the direction of Poplar Creek, where they were arrested. I regret this; for if they are allowed to trespass upon ground from which every American citizen or British subject is debarred, this camp will become again the nucleus for the roaming and disaffected bands as well as a place of refuge for the lawless.

During the time thus occupied, information had been sent me of the escape of a band of Indians under Fast Bull, who belonged at the Lower Brulé Agency; also, of their having committed depredations near the Black Hills and the Upper Little Missouri in their movement north to join Sitting Bull's camp. To intercept this body of Indians, I dispatched Colonel Whistler with five companies of the Fifth Infantry, with one light Hotchkiss gun, to watch the crossing of the Missouri between Wolf Point and Poplar Creek. This movement was promptly made, and his command placed at available points along the river, with his scouts some 60 miles on the south side of the Missouri. From information given by them and some friendly Yanktonnai Indians, Colonel Whistler learned of the approach of the band to the Missouri near Poplar Creek.

Making a forced march, on the 10th of August, he arrived in time to surprise the band just as they had crossed the Missouri and to compel their surrender without the loss of a single man or horse.

Fast Bull's band numbered 57 men, women, and children. They were disarmed and dismounted, and sent down the Missouri to Fort Lincoln by steamer General Sherman.

In accordance with instructions to withdraw the command from the country north of the Missouri, the command marched back in three columns: that under Colonel Whistler, from Wolf Point to Fort Keogh; Major Baker's battalion via Fort Peck and the Big Dry Forks; and Major Gordon's command via Beaver and Fourchette Creeks to mouth of Musselshell, thence up that valley across to Terry's Landing to Fort Custer.

The command returned in excellent order, having carried out to the full extent the letter and spirit of the orders of the department commander, and accomplished even more than was originally contemplated.

I have the honor to remain, very respectfully, your obedient servant,

NELSON A. MILES,

Colonel and Brevet Major-General, U. S. A.

The value of the results obtained by Colonel Miles can hardly be over-estimated. The hostile Sioux, who in 1876 found an asylum in British territory, had been permitted by the Dominion Government to repair all the losses of arms, horses, and equipments which they suffered in the campaign of that year, and to completely prepare themselves again for war. Made bold by the knowledge that they possessed close at hand a secure refuge on foreign soil, to which they could retreat in case they should meet a force with which they could not cope, they had invaded

our territory almost as a body, and had covered with marauding parties the country between the boundary and the Yellowstone River, and from Fort Logan on the west nearly to Fort Buford on the east. Horses and cattle had been stolen, settlers had been murdered by them, and I regret to say that I know of no adequate efforts on the part of the Dominion Government to fulfill the obligations which that government assumed when it gave to these people a refuge from the military forces operating against them—of no adequate efforts to prevent this armed invasion of the territory of a friendly neighbor. Now it is believed that not a hostile Sioux remains south of the boundary, and, to quote again the language of Colonel Miles, "This extensive country has been again cleared of hostile Indians, and the scattered settlers and travelers in it are as free from molestation as in the States of Kansas and Minnesota."

Colonel Miles, clearly and accurately comprehending the purposes of the government and the objects sought to be accomplished, and conforming in all respects to the instructions which he had received, by a most happy union of enterprise and audacity, prudence and foresight, succeeded in obtaining these results without the loss of a single soldier.

Besides the immediate result of his operations in forcing the hostile Indians across the boundary, there is good ground for the belief that a moral effect of even greater importance has been produced—a moral effect that will be lasting, and will tend to preserve the peace of the border in succeeding years.

I desire to thank Colonel Miles and his officers and men thus publicly for the exceedingly important service which they have rendered, and I trust that these services will receive a just recognition from higher authority.

I desire also to call attention to the services rendered by Lieutenant-Colonel Whistler, and the troops in the capture of Fast Bear and his band, as set forth in Colonel Miles's report.

During the past summer work has been vigorously prosecuted on the Missouri division of the Northern Pacific Railroad. This division, commencing at the Missouri opposite Bismarck, extends one hundred miles toward the Little Missouri. Eighty miles of road-bed have been completely graded, and the track laid for fifty miles. The work is still being pushed forward.

To guard and protect the surveying and working parties along the line, four companies of infantry from the garrisons of Forts Lincoln and Buford have been employed. These companies have been distributed along the line, and have moved from point to point as different sections of the work have been finished. They will be recalled to their stations before the winter sets in. It is possible that the railroad company may prosecute their work during the coming winter at and near the point where the road will cross the Little Missouri. Should they do so, it will be necessary to establish a small cantonment there for the protection of their laborers.

At the time of the last annual report from the department, the construction of Fort Meade had been commenced. Work upon it was continued until the funds appropriated for the post were exhausted. Recently, other funds having been set apart for that purpose, work has been resumed, and it is expected that before the commencement of winter the necessary buildings for a garrison of four companies of infantry and six of cavalry will have been completed. I have not personally inspected the post, but all reports regarding it concur in saying that it will be one of the finest and most comfortable posts on the frontier. Preparations for the construction of the new post authorized to be built at the foot

of the northern slope of Bear's Paw Mountains (Fort Assinaboine) were made early in the season by sending the Eighteenth Infantry, then just arrived in the department, to the selected site.

This regiment embarked on steamers at Bismarck, and after a prolonged voyage up the Missouri reached "the Coal Banks," the nearest landing on the Missouri to the site of the new post. Leaving two companies at the Coal Banks as a guard to the stores and supplies to be landed there, Colonel Ruger, with the remainder of his regiment, marched at once to the new post and commenced preparations for building. Owing to the scarcity and high price of lumber in that region it had been determined to build of brick, and the necessary supply of this material was contracted for, but much time was necessarily consumed in getting the manufacture of the brick well started, so that, although considerable preliminary work was previously done, the erection of the buildings was not fairly commenced until late in June.

Since then the work has been prosecuted with energy, and an excellent post for six companies will have been substantially completed before the winter begins.

This post is now and will be for many years to come a very important one, and it should be enlarged so as to afford quarters for a garrison of twelve companies. Colonel Ruger has recommended an additional appropriation for it of \$125,000. I think that this sum is more than would be absolutely necessary to do the work proposed, but I earnestly recommend that an additional appropriation of \$100,000 be asked for.

I also recommend that an appropriation of \$200,000 be asked for to construct another post in the valley of the Milk River or upon some one of its lower tributaries. A post in this vicinity is urgently needed to complete the chain which stretches along the northwestern frontier from the Red River of the North toward the Rocky Mountains. The posts now constituting this chain are Forts Pembina, Totten, Buford, and Assinaboine. Between the two last named is an interval of more than 250 miles as the crow flies; and midway of this interval is the great route of communication pursued by the Indians coming from the hostile camps in the dominion of Canada to the valleys of the Missouri and the Yellowstone, and to the agencies of kindred bands in Dakota.

Favorable as the prospects for peace on the northwestern frontier have become since the successful operations of Colonel Miles, it yet would be most unwise and imprudent to neglect any precaution—any measure of precaution—which would enable us to confront on the threshold a renewed attempt to invade our territory. To fill the gap between Buford and Assinaboine by building a large post in the lower Milk River Valley is the one measure of preparation which the situation imperatively demands. Such a post should be built for a garrison of not less than twelve companies; preferably it should be for sixteen companies. No reconnaissance has been made to determine what resources the lower valley of the Milk River affords for the construction of a post; but I think that owing to the scarcity of suitable timber it would be necessary to build of brick, and whether this would be necessary or not, brick buildings in the rigorous climate of that region would be by far the most desirable.

The sum of \$200,000 would be sufficient but not more than sufficient for a post to be garrisoned by twelve companies, and it probably is as much as could be profitably expended on a post in any one year.

Should the Northern Pacific Railroad be opened to the Yellowstone River during the coming year, it will probably be necessary to occupy at least one point between that river and the Missouri with a garrison

of moderate size. I recommend that this probability be kept in mind in estimating for the expenditures of this department during the next fiscal year.

At the date of the last annual report, work had been commenced on the military telegraphic lines connecting Forts Stevenson, Buford, and Keogh with Bismarck, and the line from Fort Keogh to Deadwood. These have since been completed as also the lines from Fort Keogh to Fort Custer and Fort Ellis; from Helena to Fort Shaw, Fort Benton, and Fort Assinaboine, and from Fort Lincoln to Fort Yates. The continuation of this latter line to Fort Sully is nearly completed. Work has also been done on the lines connecting Helena with Fort Missoula, and Fort Bennett with Fort Yates and Fort Meade; but for want of sufficient transportation it has been found impracticable to complete the lines from Fort Bennett to Fort Meade during this season. The others will be in operation before the close of the year.

The labor of digging holes and setting poles has all been done by the troops, and in some instances they have also cut the poles. The transportation of poles and other material has been furnished principally by the Quartermaster's Department.

The private line from Fort Ellis to Helena, by which the line between posts on the Yellowstone is connected with those in Northern and Northwestern Montana, has been purchased by the government.

I transmit herewith the annual reports of the district and post commanders serving in the department; also the reports of the chiefs of staff departments at these headquarters, and I invite attention to the recommendations therein contained. I especially invite attention to the recommendation of the chief commissary of subsistence that all of the annual supplies for the posts in Montana Territory be sent forward in the early spring. An experience of six years in this department convinces me that it is not good policy to delay until summer the sending forward of any stores destined to these posts. I also concur in the recommendation of the chief commissary of subsistence in regard to the method of making contracts for beef cattle for the use of troops in the field. The plan which has been pursued this year has failed to give good results. In my judgment in nine cases out of ten it will fail.

I desire to express my obligations to the district and post commanders, as well as the staff officers serving at these headquarters, for the able, faithful, and zealous manner in which they have discharged their respective duties during the year.

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

ALFRED H. TERRY,
Brigadier-General, Commanding.

The ADJUTANT-GENERAL OF THE
MILITARY DIVISION OF THE MISSOURI,
Chicago, Ill.

3.—REPORT OF COL. JOHN GIBBON.

OFFICE ACTING INSPECTOR-GENERAL,
DEPARTMENT OF DAKOTA,
Saint Paul, Minn., October 3, 1879:

SIR: I have the honor to submit the following annual report for the past year:

Since the latter part of April last, I have inspected every post in this department with the exception of those situated in the District of Montana.

The troops in the department are, generally, in a very satisfactory condition so far as subordination and discipline are concerned.

In regard to drill and target practice there are none in what I consider an efficient condition, nor in as efficient condition as I think they might be even under the circumstances in which they are placed.

This lack of efficiency is due, in a great measure, to the small size of the companies and the large drafts made upon them for working parties to keep up the ordinary routine labor of the posts. This is especially so at the smaller posts where the number of extra, daily and special duty men so reduces the number for drill that it is out of the question to give the men the requisite instruction. In addition to this is the constant call made on the troops for field service.

This service constitutes an important instruction in itself, but their drill is not of as much importance as discipline and efficiency in target practice, since soldiers, unless they can compete with the Indians in marksmanship, are not effective at all. I would therefore earnestly recommend that *nothing* should be permitted to interfere with the duty of instructing *every* soldier in the efficient use of the rifle by requiring every one to receive the necessary instruction in target practice and the expenditure of all the ammunition now allowed to be expended in that service.

The arms and equipments of the troops are in good order, and the troops are, in general, well supplied with subsistence and quartermaster's stores. But few complaints are made, and these usually of matters of detail easily corrected.

The police of the posts is generally good, and where there are exceptions they have been specially noted in the separate reports heretofore rendered. Especial attention is invited to the fact that great disregard is paid to providing suitable and comfortable sinks for the men and keeping them in a cleanly condition. This and the lack of attention to some minor details of police arise from the want of personal supervision of post commanders to the minute details of their respective posts. More attention to these details will insure a greater degree of comfort to the commands.

In inspecting disbursing officers' accounts, my attention has been frequently called to the fact that they do not always conform to the laws and regulations relating to the drawing of checks on the depositories and assistant treasurers. At posts on the extreme frontier it is often difficult to get funds, and disbursing officers will frequently give to private individuals drafts on the Treasury for the purpose of providing currency for paying employés; and these drafts do not, as is required by the regulations of the Treasury Department, agree in amounts with the face value of the vouchers paid. The reverse of this is also not unfrequently found to prevail, and a disbursing officer will cash drafts from the funds on hand, thus rendering it almost impossible for any inspector to prop-

erly verify the accounts. I have frequently found it the case that disbursing officers will, to accommodate private individuals, give drafts on the Treasury for small sums of one, two, and three dollars. I cannot conceive it possible that it was ever intended disbursing officers should in this way become practically *bankers* for the accommodation of individuals instead of simply custodians of public money for the payment of public debts. I therefore recommend a stringent enforcement of the rule that except in the case of small amounts on a consolidated voucher, checks shall be drawn to correspond with the face of the vouchers, and in the excepted case where small amounts are paid out to different individuals the check drawn for the whole shall correspond with the footing of the voucher.

Orders and regulations are, as a general thing, well observed and enforced, but more attention is required towards the observance of the 128th Article of War and the signing of company sick-books by company officers. I also find that the requirements of General Orders No. 12 of 1870, from Headquarters Department of Dakota, are not unfrequently neglected by commanding officers.

The best drilled and best equipped troops were found at Forts Bennett, Snelling, and Pembina. The posts in the best police, and with the best and neatest sinks, were Forts Buford, Totten, and Pembina.

During the four months commencing January 1 last, the posts having the greatest percentage of men confined are Forts Stevenson (50 per cent.), Snelling (40 per cent.), Buford (34 per cent.), and Lincoln (33 per cent.); and those having the least, Forts Sully (4 per cent.), Bennett (9 per cent.), Randall (9½ per cent.), Totten and Hale (15 per cent.).

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

JOHN GIBBON,

Colonel Seventh Infantry, Acting Inspector-General.

Maj. GEO. D. RUGGLES,

Adjutant-General, Department of Dakota, Saint Paul, Minn.

4.—REPORT OF COL. N. A. MILES.

HEADQUARTERS DISTRICT OF THE YELLOWSTONE,
Fort Keogh, Mont., September —, 1879.

SIR: I have the honor to report that, since my last annual report, there has been very little change in this military district or in the status of the troops stationed therein.

The 600 miles of military telegraph constructed by the troops was completed December, 1878, and the different lines have been of great value to the military as well as to the settlers.

During the months of November and December, 1878, reports were received over the military telegraph line that Little Wolf's band of Northern Cheyennes, having left their agency in the Indian Territory, were moving north through the settlements of Kansas and Nebraska, resisting the troops and committing serious depredations. The prompt and judicious use made by Colonel Whistler of the troops at Fort Keogh, and the commendable action taken by Lieutenant Clark—in command of 125 men from that post—although met by severe winter weather and many difficulties, resulted in the capture of that body of Indians, who had left behind them a trail of suffering and woe.

These Indians were taken to Fort Keogh, and by fair and just treat-

ment have remained for many months perfectly peaceable and contented. Those who had committed murder in this district were arrested by the military authorities, turned over to civil courts, tried and sentenced to be executed.

During the latter part of January, 1879, a citizen named Philip Lynch was killed in his own cabin near Porcupine Bottoms, by two Gros Ventres Indians. The guilty parties were arrested by the military and turned over to the civil authorities, and were tried and accordingly sentenced, one to be executed, the other to ten years in the penitentiary.

March 20, 1879, two white men were killed on the Upper Yellowstone, near Sterns's ranch, by a small war party of Nez Percés and Sioux, who came from and returned to the British Possessions. This party recrossed the Missouri near Carroll's, and admitted their crime after having recrossed the Canadian line.

June 6, 1879, a citizen named Sebbesze was mortally wounded, and one named Peters slightly wounded, near their wood ranch on the north side of the Yellowstone, opposite mouth of Powder River, by a party that came from and returned to Sitting Bull's camp near the Canadian frontier. They recrossed the Missouri River with their stolen stock at Dave Bercer's wood-yard, near Poplar Creek Agency.

Several reports were received of depredations having been committed by Indians from the north during the months of April, May, and June, 1879. On the 3d of June, 1879, a war party of seventy men crossed the Missouri near mouth of Musselshell, for a raid along the Yellowstone settlements.

The following extract from letters of the Indian agent at Fort Belknap shows the intentions and feeling existing among the hostile Sioux, and the causes of alarm at the time :

FORT BELKNAP AGENCY, MONT., *May 22, 1879.*

SIR: I have the honor at this time to report further information in regard to the hostiles.

Some half-breeds came in this morning who left the camp of the hostiles eight days ago. They report them as being near the line, some thirty-five miles directly north of this post, five hundred lodges in one place and three hundred in another, not far apart; also as being extremely hostile, and more especially against the soldiers, and bent upon war. Small war or horse-stealing parties are being continually sent out. They saw the ten horses spoken of by me in a former letter as being stolen from this post, and the nineteen horses stolen from Lieutenant Krouse on Eagle Creek. I have no doubt but that we are on the eve of an Indian war, as all the information I receive points distinctly to that end.

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

W. L. LINCOLN,
United States Indian Agent.

Hon. E. H. HAYT,

Commissioner Indian Affairs, Washington, D. C.

The following extract from the reports and urgent appeals of the Indian agent at Poplar Creek Agency show the condition of affairs in that vicinity :

UNITED STATES INDIAN SERVICE,
FORT PECK INDIAN AGENCY,
Poplar River, Montana, June 6, 1879.

SIR:

* * * * *

According to the best information I have been able to obtain, Sitting Bull was located on this side of the boundary line during most or all of months of December, January, and February, but toward the latter part of February he went north, and has since been some distance north on the Canadian side, but the Indians belonging to his camp have been scattered in small bands from the north of Milk River to Wood Mountains all winter, and are now roaming over the reservation on both sides of the Missouri River, seeking buffalo and other game for their subsistence.

Most of the horse-stealing this spring on the Musselshell and Yellowstone has been done by them.

A number of applications have been made at the agency by small bands of Sitting Bull Indians for the issue to them of flour and other rations, but were informed of the instructions of the Commissioner to only receive them on the surrender of their arms and horses, but they are a serious and disturbing element to this Indian agency, and I think should be driven from this reservation and kept on the Canadian side of the boundary.

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

W. BIRD,
United States Indian Agent.

General NELSON A. MILES,
Fort Keogh, Montana.

FORT PECK INDIAN AGENCY,
Poplar River, Montana, June 13, 1879.

SIR: I have the honor to inform you that, after much and careful deliberation, I have arrived at the conclusion that the interests of the agency here require the presence of a company of United States troops.

I therefore respectfully ask of you to obtain an order from the War Department to place a company of soldiers at Poplar River, to act under the orders of the agent.

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

W. BIRD,
United States Indian Agent.

Hon. COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.

UNITED STATES INDIAN SERVICE,
FORT PECK INDIAN AGENCY,
Poplar River, Montana, April 19, 1879.

SIR: In a communication I sent you dated 10th of February last, and in my monthly report for March, dated March 31, I informed you that Sitting Bull Indians were scattered over this Indian reservation in camps of half a dozen to one hundred lodges, from the north of Milk River to Wood Mountain police station.

I now have the honor to recur to the same subject, and desire to call your attention in an especial manner to the fact that companies of hostile Indians from Sitting Bull's camp are now scattered out, occupying the entire northern part of the reservation. Our agency Indians are coming in to the agency now daily, and complaining bitterly of the encroachments of these Indians on their hunting-grounds. They say they find Uncapapas from Sitting Bull's camp everywhere driving and scattering the buffalo and other game, so that it has become a matter of real difficulty for them to obtain buffalo enough for their subsistence. They further complain that these Indians steal their horses and run them off over the boundary line.

I believe there is no doubt at all that Sitting Bull is now on American soil, and has been camped south of the boundary line since the middle of February last, and that practically all his Indians are now south of the northern boundary, there being, as they claim, no game for their subsistence on the Canadian side.

I call your attention in this special manner to this state of things in regard to these hostile bands of Indians, believing that you would, with a knowledge of the facts before you, call the attention of the proper authorities to the subject, that some attention may be given the matter, and the Indians and people and property of this Indian agency be protected from their encroachments and possible hostile raids.

A more unprotected condition than now exists of the buildings and property of the agency at both Poplar River and Wolf Point cannot be conceived; certainly no more property should be delivered and stored at either place without some additional protection is afforded by the proper authorities.

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

W. BIRD,
United States Indian Agent.

Hon. COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.

As no action had been taken against the hostile Sioux, they became active and bold in sending out small war and stealing parties to commit depredations along the Yellowstone, the Musselshell, and Judith Rivers.

June 5, 1879, I received a telegraphic order from the department commander (based upon a request of the Commissioner of Indian Affairs and concurred in by the Secretary of the Interior) directing me to take the available force from the district of the Yellowstone and move north of the Missouri, to separate our friendly from the hostile Sioux Indians, and to clear out those who had moved south of the boundary line; after driving them back, to establish a summer camp north of the Missouri.

On the 23d of June, preliminary to the movement of the troops, I sent Colonel Whistler to the Poplar Creek Agency to ascertain the cause of trouble there. He reported the Indians almost without food, and complaining of the traders charging exorbitant prices for his goods. By my direction he crossed the entire Yanktonnai camp of between three and four hundred lodges to the south side of the Missouri.

By executive order, the reservation of this tribe of Indians had been extended south to the Yellowstone; on that part of their reservation they found abundance of game and were at once satisfied.

The tribe of Assinaboines that have for years been annoyed by the Sioux were moved south so as to be in rear of the command when it moved north of the Missouri River; twenty of their number enlisted as scouts. Their knowledge of the country was found valuable.

In accordance with the order of the department commander, the command, composed of seven companies of the Second United States Cavalry and seven companies of the Fifth United States Infantry, a detachment of artillery, and friendly Indians and scouts, with the necessary transportation, left the Yellowstone River at Fort Keogh, July 3 and 5, 1879.

On the 10th, 11th, and 12th, this command crossed the Missouri at Old Fort Peck. At that point my force was increased by 98 recruits and two companies of the Sixth United States Infantry—the latter as guard for the supply depot. Completing the equipment of the command for the field, I left Fort Peck on the 15th day of July, with the organization heretofore mentioned, numbering 33 officers, 643 enlisted men, 143 friendly Indians and enlisted scouts, moving north from the Missouri, passing up on the south side of Milk River, and on the 16th reached Campbell's house. The same day the Cheyenne and Crow scouts under Lieutenant Clark arrested a party of French half-breeds, and ascertained that some 400 Sioux warriors had been near their camp the day before. The half-breeds falsely reported that there were no Sioux south of Milk River, and that they had all returned to their camp near the Canadian line, on Frenchman and Little Rocky Creeks.

On the morning of July 17, 1879, Lieutenant Clark, with a detachment of Indian scouts, and Lieutenants Borden and Hoppin's companies, were sent up Beaver Creek to look for half-breed camps and any signs of hostile Indians, the main command moving four hours later. At 12.30 a report was received from Lieutenant Clark that a party of some 400 hostile Sioux had been discovered about five miles up Beaver Creek, and that he was about to engage them.

The impetuous attack of our friendly Indians, followed by the vigorous charge of the troops, resulted in driving the Sioux some twelve miles across the plains between Beaver Creek and Milk River, compelling them to abandon much of their property. When near old Fort Browning (an abandoned trading post) the Sioux made a stubborn resistance, and being re-enforced, for a time pressed the small command from all sides.

Lieutenant Clark had, however, taken up a strong position, and as the main command had been moved forward rapidly, the Sioux, under Sitting Bull, fled to the north side of Milk River and in the direction of head of Little Rocky Creek, leaving eight of their dead behind them.

This affair was followed by the command crossing Milk River at old Fort Browning and moving up Frenchman's Creek west of the trail to the only ford at old Fort Turney. The trail was then followed to where it crossed the Canadian line near main branch of Little Rocky Creek.

On July 23, 1879, Major Walsh, of the Northwestern Mounted Police, visited my camp immediately south of the line and was informed of the object of our movement and the occasion of so large a force of troops being on the boundary line, namely, the depredations and trespasses committed by Indians from the Canadian side and who had been pursued to that point. He stated that he believed no depredations would be committed in the future. After his departure the commander moved down Rocky Creek to head of timber.

On the 28th of July Major Walsh, of the Northwestern Mounted Police, came to my camp accompanied by a representative of the hostile Sioux, named Long Dog, an Uncapapa, who has for years been regarded as a man of much influence among the hostiles. In answer to a question as to "whether the Sioux had chosen their country, and on which side of the boundary they intended to remain?" turning to Major Walsh he said: "We intend to remain with him." Major Walsh stated they had given him the same answer, and told him that they would send out no more war parties. He also assured me that no apprehension need be felt that any hostile movement would be made south of the line. I regarded this as the best results that could have been attained, and the assurance worthy of confidence.

I am gratified to say that up to the present time the promises then and there given have been rigidly adhered to. Not a single act of hostility has been committed, or a dollar's worth of property stolen by those Indians, to my knowledge.

From all the information I have gathered during the past three years from reliable men who have been frequently through their camps, from traders and half-breeds as well as from American and Canadian officers, the strength of that camp numbers between 6,000 and 8,000 souls, with between 12,000 and 15,000 horses, divided into four large camps; the Uncapapas, under Sitting Bull, Black Moon, Long Dog, and Pretty Bear; the Minneconjoux, under Black Eagle; the Sans Arcs, under Spotted Eagle, and Ogallallas, under Big Road or Broad Trail.

As this large body of Sioux is composed of the worst Indians of the Northwest country, I consider the fact of their being driven out and their becoming expatriated by their own acts as more important and satisfactory than would have been their unconditional surrender. This country is now free from their depredations, we avoid the expense of supplying them with food and clothing, and there need be no difficulty in keeping them out of the country in future.

After the above had been accomplished, a battalion of cavalry, under Major Baker, was dispatched to the junction of Frenchman's Creek and Milk River, with a force under Lieutenant Clark well out to the west. Lieutenant Randall, Captain Ovenshine, and Major Gordon's commands were sent east to Porcupine and Poplar Creeks. The commands in one week arrested 829 half-breeds, who were intruders upon our Indian reservation. Their camps had been places of refuge for war and stealing parties and for illegal traffic. Those who belonged north of the Canadian line and were British subjects, together with a small camp of 20 lodges non-

treaty Cree Indians from the Saskatchewan, were sent north of the boundary line; those who belonged in Northwestern Dakota, near Moorehead and Turtle Mountains, were sent east to Fort Buford; and the remainder—158—sent south of the Missouri River and located in Judith Basin. Those sent north of the line have given no further trouble. Those sent to Judith Basin are contented, well pleased with the country, and are anxious to take up land, make themselves homes, and abandon their nomadic life.

Since the return of the command I have been informed that a part of those sent to Buford were liberated, and that they returned in the direction of Poplar Creek, where they were arrested. I regret this; for if they are allowed to trespass upon ground from which every American citizen or British subject is debarred, this camp will become again the nucleus for the roaming and disaffected bands, as well as a place of refuge for the lawless.

During the time thus occupied information had been sent me of the escape of a band of Indians under Fast Bull, who belonged at the Lower Brulé Agency; also of their having committed depredations near the Black Hills and the Upper Little Missouri in their movement north to join Sitting Bull's camp. To intercept this body of Indians, I dispatched Colonel Whistler with five companies of the Fifth Infantry, with one light Hotchkiss gun, to watch the crossing of the Missouri between Wolf Point and Poplar Creek. This movement was promptly made, and his command placed at available points along the river, with his scouts some 60 miles on the south side of the Missouri. From information given by them and some friendly Yanktonnai Indians, Colonel Whistler learned of the approach of the band to the Missouri near Poplar Creek. Making a forced march, on the 10th of August, he arrived in time to surprise the band just as they had crossed the Missouri and to compel their surrender without the loss of a single man or horse.

Fast Bull's band numbered 57 men, women, and children. They were disarmed and dismounted, and sent down the Missouri to Fort Lincoln by steamer General Sherman.

In accordance with instructions to withdraw the command from the country north of the Missouri, the command marched back in three columns: that under Colonel Whistler from Wolf Point to Fort Keogh; Major Baker's battalion via Fort Peck and the Big Dry Forks; and Major Gordon's command via Beaver and Fourchette Creeks to mouth of Musselshell, thence up that valley across to Terry's Landing to Fort Custer.

The command returned in excellent order, having carried out to the full extent the letter and spirit of the orders of the department commander, and accomplished even more than was originally contemplated.

This extensive country has been again cleared of hostile Indians, and the scattered settlers and travelers are as free from molestation as in the States of Kansas and Minnesota.

The command marched upwards of 1,000 miles, a great part of the distance over new country. No accurate tracing can be made of the marches, which might be useful in future, owing to the fact that the necessary engineering instruments, which were with my command, had been taken away and others could not be obtained from the department engineer officer.

The country between the Yellowstone and the Missouri is chiefly rolling prairie, occasionally interrupted with tracts of "mauvaises terres" or bad lands, from 10 to 20 miles in extent. There is very little timber, and in places a scarcity of water. The country north of the Missouri

is substantially the same, but well watered, and with a very small percentage of bad lands.

The country near the Little Rocky and Bear Paw Mountains is the finest Indian country I have found from Texas to the northern boundary. Over the extensive area of country north of the Missouri and between the Missouri and Yellowstone grass was found in abundance, and the soil will produce every kind of grain as well as vegetables. Major Walsh, of the Northwestern Mounted Police, has produced excellent vegetables, as well as grain, this season at Wood Mountains, while the Indians at Wolf Point and Fort Keogh and the garrisons at Keogh and Custer have excellent gardens.

No section of country abounding in such pasturable richness can be found in the United States. The horses, mules, and cattle keep in better condition than in any territory that I have ever passed over. It is my opinion that a commission should be authorized to examine into the condition of the Indians in this section of country, with a view of bettering their condition and allowing them such lands as will be required for their future. A few thousand Indians at present roam over an area of country equal in extent to five States the size of Pennsylvania. What is needed for the Indians should be given them and the remainder thrown open for settlement. Large tracts of country that are now held is said to have been reserved through the influence and for the benefit of a few unscrupulous traders. At the same time the system of government does not tend to improve the Indians, neither are their annuities sufficient to supply their necessities or of a kind to do them the most good.

The Bannock Indians that were captured one year ago have been held at Fort Keogh and recently returned to Fort Hall Agency. They have not given the least trouble, and assert that the only cause of their outbreak was the fact that they were cheated and starved at their agency.

The warriors of this band were taken with the command and used against the Sioux, rendering good service. They are an active, hardy mountain race of Indians, accustomed to the high altitudes of the Rocky Mountains, where, if they are justly treated, they would support themselves and remain at peace.

I desire to invite especial attention to the Indians that remain at Fort Keogh. Those that surrendered and were captured and brought to this place in abject poverty, utterly broken down, by fair treatment, and without annuities or appropriations of Congress, have supported themselves. The funds realized from the sale of ponies surrendered by them have given them a good herd of domestic cattle, and by their own industry they have cultivated an extensive field, and will this season raise an abundance of vegetables, sufficient to last them during the winter and until next summer. When these Indians were with the hostiles they were regarded by the Sioux as the most active and bravest Indians on the plains; but since their surrender they have become perfectly loyal and the bitter enemy of the Sioux; they have proved their fidelity with no less than eight different expeditions and in five engagements, and in every way have shown a desire to better their condition and remain at peace with the white people. They are exceedingly useful auxiliaries as scouts and in picking up small parties of hostile Indians.

The importance of maintaining a strong force in this central position I think has been very apparent. Large posts not only are more effective but less expensive.

The garrisons from these two posts of Custer and Keogh are not only able to protect all the government property and interests, but to protect the extensive lines of travel and communication, and to render the

eastern portion of Montana untenable for hostile Indians, and safe for the settlements that are rapidly dotting the country in every direction; besides, the keeping of large commands together gives better opportunity for instructive drill and discipline of the troops.

I inclose report of Acting Assist. Surg. R. G. Redd, regarding Fort Keogh and its suitableness as regards health for a large military establishment.

I have the honor to remain, very respectfully, your obedient servant,
 NELSON A. MILES,
Colonel and Brevet Major General, U. S. A.

The ASSISTANT ADJUTANT-GENERAL,

DEPARTMENT OF DAKOTA,

Saint Paul, Minn.

5.—REPORT OF COL. T. H. RUGER.

HEADQUARTERS DISTRICT OF MONTANA,

Fort Assinaboine, Mont., September 23, 1879.

SIR: I have the honor to submit, as district commander, annual report as follows:

Having been in command of the district for a part only of the year, and during such time not having, in consequence of duties in connection with the construction of the post of Fort Assinaboine requiring my presence here, had opportunity to visit the post in the district; and operations of the troops in the district for such time having been confined to detachments from the posts, I do not think I can present anything relative to the duties performed by the troops or the condition of particular posts not known to the department commander, or that will not be embraced in the direct reports submitted by commanders of posts, and will confine this report principally to suggestions of a general nature.

As I have been so short a time in this command and have not here for reference copies of reports by former district commanders, nor those of the department commander, I ask indulgence as to what may be repetition of questions before presented or considered, and of suggestions as to the same.

The changes in the routes of travel, the settlement of country about some of the older posts, the spreading of new settlements, the approach towards, and probable completion within a short time to points within the Territory of Montana of the Northern Pacific and Utah Northern Railroads, and the difficulty now had and which must increase for the Indians of the various tribes within the territory and regions adjacent, in procuring food by hunting, will require, for the best results with reference to repression of Indian hostilities, that changes take place in the location of posts and distribution of garrisons. This matter has, I know, been a subject of consideration, and I allude to it, mainly because I think action should be had as soon as practicable with a view to assure in due time control of results in so far as the functions of the army may be concerned.

Fort Logan seems to be of little practical value and might, I think be discontinued.

Fort Shaw is now of secondary importance, but is still necessary for a small garrison.

There does not seem to be need for continuing a company at Benton. A post might, with much advantage, be established somewhere in the

vicinity of the forks of the Muscleshell. It would serve to check the raiding of small parties of hostiles through the country to the west of Fort Custer, and be well placed with reference to the future extension westward of the North Pacific Railroad.

Work on the new post of Fort Assinaboine has so far progressed as to provide for six companies. To be effective for the purpose of its establishment this post should be for a command large enough to permit the detachment of a force of at least 500 effective men. Not less than twelve companies would afford a sufficient garrison for the object. To complete the necessary buildings for such garrison will require a further appropriation by Congress of about \$125,000. It is very desirable that the appropriation should be available so that work may begin the coming spring to insure completion of the buildings before another winter.

If it were practicable to establish another strong post about midway between Fort Assinaboine and Fort Buford, either near the Missouri River or in the vicinity of the Big Bend of the Milk River, complete control of the whole country north of the Missouri would result. Considerable complaint has of late been made by Indians of the Fort Belknap Agency on account of the presence on this side of the boundary of Indians other than the Sioux, belonging north of the line, and particularly in reference to their coming in future. It has, as I am informed, been long common for Indians belonging in the United States, particularly the Piegans and Assinaboines, and for the Crees, Bloods, and Blackfeet, belonging in the Dominion, to cross the line without restraint for purposes of visiting and hunting. No special trouble resulted so long as game was abundant, but since game has become comparatively scarce in this region of country, both north and south of the boundary, it is evident that if the present policy of requiring Indians belonging on our side of the line north of the Missouri to subsist themselves as far as possible by hunting is to be continued, it will be necessary to prohibit the crossing of considerable parties from the other side. No additional authority to that now existing is, as I understand, requisite; but under the circumstances it appears to me that it would be desirable if some agreement could be had with the authorities of the Dominion for the object of confining the movements of Indians to their proper side of the boundary.

Steps have been taken, I learn, by the Dominion authorities to provide more than heretofore for the subsistence of Indians in places where they cannot live by hunting. From inquiry and observation I am of opinion that the means heretofore supplied the Indian agent at Fort Belknap will not be sufficient in any event for the future. It cannot be reasonably expected that any great progress will for some years be made by the Indians attached to the agency towards self-support, under the most favorable circumstances, and unless more ample provision shall be made to meet their necessities they will be reduced to great straits, and probably resort to depredations.

The present condition of things relative to the supply of the posts dependent on transportation by the Missouri River shows the necessity for remedial action. The greater part of the supplies are still back, it having been impossible for boats to bring any considerable quantity of freight shipped from points below above Cow Island, since the time when purchases on account of the present fiscal year have been made. Besides the great inconvenience resulting, much unnecessary expense is involved. The only adequate remedy, and which would provide for the contingency of appropriation by Congress, as in the present case, late in one fiscal year for the next, seems to be the exercise by Congress of the

constitutional power of providing, in part, a year in advance for the necessities of the Subsistence Department, at least.

Very respectfully, your obedient servant,

THOS. H. RUGER,

Colonel Eighteenth United States Infantry, Commanding.

The ASSISTANT ADJUTANT-GENERAL,

DEPARTMENT OF DAKOTA,

Saint Paul, Minn.

6.—REPORT OF BRIG. GEN. GEORGE CROOK.

HEADQUARTERS DEPARTMENT OF THE PLATTE,
Fort Omaha, Nebr., September 27, 1879.

SIR: Since my last annual report the outbreak of the Cheyenne Indians from their reservation in Indian Territory, coming as it did at a time when the main portion of the command was in the field in the northern part of the department watching for prowling bands of Sioux, occasioned serious trouble and danger to the settlements in Western Nebraska. Every available man was at once dispatched to intercept them or drive them back.

The expeditions commanded by Majors Thornburgh and Carlton did faithful and arduous work and met with as much success as might be expected in the pursuit of savages resolved at all hazards to escape, and thoroughly acquainted with every feature of the country. These Indians were entirely unencumbered with baggage, were well mounted, and stealing fresh horses from every stock ranch; and to catch them would be as hard a task as to catch a flock of frightened crows.

On the 23d October the greater part of the Cheyennes were met by Major Carlton's command in the sand hills about 40 miles southeast of Camp Sheridan, Nebraska, and after a parley surrendered. They said that they had left the Indian Territory on account of chills and fever and an insufficiency of food, and manifested a determination to die rather than be sent back, although they said they would gladly remain at peace with the whites if allowed to live in a healthy locality and treated with honesty and justice; and I am satisfied they never would have surrendered had they not thought that they would have been permitted to remain north. They adhered so firmly to their statements that it was impossible not to believe that there must have been some good grounds for their leaving the Indian Territory.

Among these Cheyenne Indians were some of the bravest and most efficient of the auxiliaries who had acted under General Mackenzie and myself in the campaign against the hostile Sioux in 1876 and 1877, and and I still preserve a grateful remembrance of their distinguished services which the government seems to have forgotten.

In the arduous labor involved in the pursuit of these Cheyennes, I deem it my duty to speak in terms of warm commendation of the services rendered by the commands of Majors Thornburgh and Carlton and that under Colonel Tilford, Seventh Cavalry, from the Department of Dakota, operating within the limits of this department.

The captured Cheyennes were taken to Fort Robinson, Nebr., and there confined in a set of company quarters. They repeated their expressions of desire to live at peace with our people, but said they would kill themselves sooner than be taken back to the Indian Territory. These statements were confirmed by Red Cloud and other friendly Sioux

chiefs, who assured us that the Cheyennes had left their reservation in the Indian Territory to avoid fever and starvation, and that they would die, to the last man, woman, and child, before they could be taken from the quarters in which they were confined. All this information was promptly reported to higher authority, and instructions urgently requested; but no action was taken until the very last days of December, when orders were received to remove them south. At this time the thermometer at Fort Robinson showed a range of from zero down to nearly 40° below (the freezing point of mercury). The captives were without adequate clothing, and no provision had been made to supply it until very late in the season, which occasioned a further delay until the beginning of January.

The Cheyennes had now become satisfied that their complaints would not be considered, and the situation of affairs became desperate. They demanded several times to be informed whether or not they were to be taken back south to the Indian Territory, and reiterated their determination to die rather than leave the post of Fort Robinson. Two or three of their party were anxious to yield, but their comrades threatened their lives if they made any attempt to leave the building. Every argument failed; every persuasion was tried. To have entered the building to seize the ringleaders would have been the signal for the commencement of a fearful and unnecessary carnage; the Indians had dug rifle-pits commanding all entrances, and were supplied with knives and slings, made by breaking the stoves in their quarters. Having tried every means in his power and failed, and there being no change in the orders from Washington, Captain Wessells, the officer in charge, had no alternative but a resort to harsh measures. He made overtures to the chiefs and headmen to let the women and children come out from the building, so that they might not suffer in any conflict that might arise; but the Indians defiantly rejected every attempt at compromise, saying "We'll all die here together sooner than be sent south."

Captain Wessells then stopped the issue of food and fuel, hoping to bring them more speedily to terms. I may say here that this measure, criticised by the rules for the *theoretical* management of Indians, seems to have been a severe one; but I ask, and I claim to have had as much experience in the management of Indian tribes as any man in this country, what alternative could have been adopted? During the twenty-seven years of my experience with the Indian question, I have never known a band of Indians to make peace with our government and then break it, or leave their reservation, without some ground of complaint; but until their complaints are examined and adjusted, they will constantly give annoyance and trouble.

In the present case, the Cheyennes claimed that they had been wronged, and had become as desperate as a pack of wolves. The Army had orders to take them back to the Indian Territory, and had no option in the matter. It seems to me to have been, to say the least, a very unnecessary exercise of power to insist upon this particular portion of the band going back to their former reservation, while the other fragments of the same band, which surrendered to the troops on the Yellowstone or escaped to the Red Cloud and Spotted Tail Reservations, had been allowed to remain north unmolested, more especially since we have every reason to believe that the latter were the principal actors in the outrages perpetrated in Kansas, and know that they murdered several persons since the surrender of those confined at Fort Robinson.

About the dead of night, on the 9th of January, the Cheyennes made a sudden break through the windows and doors of their place of con-

finement, shooting down the sentinels with arms they had managed to obtain, and possessing themselves, in addition, of the carbines and revolvers of the soldiers killed. After this they moved in one compact mass toward the high bluffs back of the post, fighting desperately all the while, women with men. It was impossible, in the darkness, cold, excitement, and confusion, to avoid the deplorable results that might be expected. A number of the squaws were killed and wounded in the affray, although officers and men used every care to capture, where possible, without inflicting injuries, and a number of our men froze hands and feet while taking women and children back to the post.

It is unnecessary to enter more at length into this subject, as the reports, telegrams, and letters already in your office are complete and voluminous.

At present, affairs in the department are in a very satisfactory condition, the only trouble being with the Utes of the White River Agency, Colorado (to which point troops from this department have just been sent), and which trouble I hope may soon be adjusted.

The rapid construction of branches in Utah, Idaho, and Nebraska by the Union Pacific Railroad is doing much to reduce expenditures by lessening freight charges, and giving greater facilities for the transportation of troops.

The reports of the chiefs of the various staff departments contain accurate and complete information as to their workings. I invite attention to the various suggestions made, especially that by Colonel Royall, inspector-general, about commissary sergeants, that of Captain Stanton, engineer officer, about furnishing an annual allowance of \$3,000 for the expenses of surveys in this department, and that of Major Burnham, judge-advocate, that he should be supplied with books of authority upon the various subjects coming within the scope of his duties.

Very respectfully, your obedient servant,

GEORGE CROOK,
Brigadier General, Commanding.

The ASSISTANT ADJUTANT-GENERAL,
MILITARY DIVISION OF THE MISSOURI,
Chicago, Illinois.

7.—REPORT OF BRIG. GEN. JOHN POPE.

HEADQUARTERS DEPARTMENT OF THE MISSOURI,
Fort Leavenworth, Kans., October 3, 1879.

COLONEL: I have the honor to submit the following report of affairs in this department for the past year:

INDIANS.

The band of Northern Cheyennes, which at the date of my last report had broken away from their agency in the Indian Territory, and were on their way north, succeeded in effecting their escape from this department and crossing the Platte River. It is not necessary to set forth the reasons for their escape. The proceedings of a general court-martial on some of the officers engaged in the pursuit have sufficiently set forth the facts for any purposes of the government.

Part of this band was surrounded and captured in Nebraska and con-

fined at Camp Robinson, from which post they attempted to escape and the larger part of them were killed. The small fragment left was sent back to this department, and all the men (seven in number) were by order of the War Department turned over to the State authorities of Kansas for trial, having been first identified as participants in the murders committed by the band within the limits of the State. They are still in confinement at the State prison, and it is understood will be tried in October.

The remainder of the Northern Cheyennes at the agency in the Indian Territory have been very restless and discontented for a long time, and, under Little Chief, are, in my opinion, ready at any favorable time to break away to the north. I do not consider their feeling or status at all satisfactory, and I am omitting no precautions which I have the right to take to provide against an outbreak. The force of cavalry in this department is wholly inadequate for anything like complete security against the Indians in the Indian Territory. I have repeatedly urged an increase of cavalry force, and stated in full the necessities of the case, but thus far it has been found impracticable to furnish it.

I do not believe, from the official information I have on the subject, that the removal of the Comanches and Kiowas from the Sill Reservation to the Wichita Reservation will be satisfactory to the Indians or beneficial to the public interests. If, however, the Indian Department be held responsible for the consequences, I shall have nothing to say, but I do most respectfully submit that, as the military authorities have opposed this removal to the full extent of official propriety and for reasons which appear to them sufficient, they should in no sense be blamed for any evil results that may follow the removal.

The bands of outlaws and horse thieves who have always infested the Indian Territory have of late greatly increased in numbers and boldness, and, under the orders of the War Department, I have three cavalry companies scouting the eastern part of the Territory to hunt them down if possible. Most of the inhabitants of that region, however, are in such a state of terror of these outlaws, that no information concerning these bands, or individuals of them, can be procured from them, and the troops will have a long and difficult task before them.

INVASION OF INDIAN TERRITORY.

During last spring there was some excitement (much more in the East than here) about a proposed invasion of the Indian Territory for occupation and settlement. Misled by absurd notices and proclamations put forth by a man named Carpenter, a good many honest and worthy people did begin to move south for the purpose of entering upon the lands in the Territory under the belief that they had a legal right to do so; but in every case, when properly notified that they would violate the law by such a movement, those of them who had entered the Territory returned, and those who had not reached the line turned back. There is no doubt that the whole excitement was created for certain local interests not worth while to set forth, and was stimulated by parties interested for purely speculative purposes. The whole affair faded out as soon as the purposes of the government were known, and it was made manifest that the proceeding would be arrested by force if necessary. Some infantry force is still kept at points along the northern line of the Territory, but as there is no likelihood that further movements into the Territory will be made this winter, it is probable that this small force can be withdrawn for the winter very soon. It is, however, not

improper to say that as the whole of the eastern portion of the Indian Territory constitutes one of the finest agricultural and pastoral districts of the country, is a most attractive region to the white emigrant, and is only sparsely occupied by tribes of Indians who make little use of its productive capacity, the government must expect and in my opinion should be prepared to meet greater difficulty every year in preserving it to the occupation of the Indian tribes. This section will support, when properly cultivated, some millions of civilized people, and greatly add to the productive wealth of the country. That it is coveted by people desiring to emigrate from all parts of the West is beyond question, and it is equally certain that every means will be resorted to to acquire a foothold in it and its virtual possession by the whites. To illustrate its great area, and the very insignificant manner in which it is now occupied, I submit, inclosed, a tabular statement showing the area occupied by the Indians, who make little if any use of the soil, and a comparison in that respect with the populous States east of it. To hold it in secure and unmolested possession of the Indian tribes now there will require a larger force every year, and before long a continuous cordon of posts near together and entirely surrounding it. I merely set forth the situation as it is that the government may be prepared for increasing demands for the protection of the Indian Territory against emigration of the whites and a constantly increasing military force to that end.

THE UTES.

The state of affairs in Western Colorado has now reached a condition when it is no longer possible to leave the Ute Indians where they are, without constant collision and outrage on both the part of the whites and Indians. Not only is the great Ute reservation in Southwest Colorado a valuable agricultural district, and quite essential to the support of the large population pouring into that region, but valuable mines, said to be much like those at Leadville, have been discovered on the Gunnison River, within the limits of the Ute reservation. It is easy to anticipate the result of leaving these Indians in occupation of valuable mineral and agricultural lands in a section of country into which white emigration is pouring with its usual energy, and which presents attractions wholly irresistible to the white emigrants of this country. Whatever effort the government shall make with the military force to arrest this movement into the valuable mining districts within the Ute reservation, must be, to a large degree, futile, and beyond doubt prejudicial to the interests of the government as well as of the State of Colorado. The relations between the Indians and whites under such circumstances is certain to lead to numerous acts of violence and wrong, committed by both sides, and wholly incapable of redress. The consequences of such a condition of affairs nearly always fall upon the innocent and helpless; both red and white people suffer alike in such an environment.

The time has certainly come, in the case of the Utes, when the safety of both Indians and whites demands some change of location for the Indian to lands which offer no such temptation to the whites. The agricultural and rich mineral lands embraced within the present Ute reservation are of no value to the Indian. He neither mines, nor, to any appreciable extent, farms, and a country abounding in game and grazing, and in every way suited to his simple life, would be far better for him and far more secure to his possession. Thoroughly impressed with these opinions, I invited the attention of the government, long since, to the propriety, indeed the necessity, of removing the Utes outside of the

State of Colorado, and of consolidating their agencies and reservations into one, to be located on the headwaters of the West Fork of the Chama and along the valley of the Navajo River. That country is fully described in my annual report of last year, and is perfectly adapted to the wants of the Indians. It was proposed, in the same connection, to establish a considerable military force at Pagosa Springs, on the flank of this reservation, to prevent trouble from or with the Indians, and an appropriation was made last winter for this purpose; but I do not consider it advisable to build the post until it is certain that the Indians will be thus removed. Two companies of infantry are now in cantonment at Pagosa and will remain there this winter.

A commission to treat with the Utes in this view was sent out last year, and an agreement was made with the southern bands (who at present are the only Indians with whom the trouble indicated is likely) to remove to a new reservation which the commission marked out in the southern part of Colorado. This agreement has not yet been ratified by the Senate, and, before such ratification is made, I wish to suggest, as forcibly as I may, that the reservation set out by the commission is in my opinion faulty in several important respects. In the first place, I consider it essential to peace and to the welfare of the Indians, as well as the interests of the government and the State, that this new reservation be, if possible, outside of the State of Colorado. Aside from every other consideration which might be advanced, the public mind in Colorado is greatly excited on this subject, and imperatively demands (and I believe wisely demands) the removal of these Indians to some locality outside of the State, a feeling which is entitled to very high consideration; 2d, the reservation, as marked out by the commission, lies across the roads leading from the east and south into Southwest Colorado, so that all travel in that direction must pass directly through the Indian lands. Of course such an arrangement is unfortunate alike to whites and Indians, and is sure to lead to frequent collisions and incurable discontent on all sides; and 3d, the agreement does not include the White River band of Utes.

I inclose herewith a map showing in *red* the boundaries of the new reservation as proposed by the commission, and in *blue* the boundaries I propose, and which seem to me to cover the necessities much better. I hope sincerely on every account that in acting upon the agreement of last year between the Utes and the commission to treat with them, the lines of their new reservation as suggested by me will be adopted in preference to those proposed by the commission. Early attention should be given to this subject, as the relations between the emigrants and the Indians are becoming every day more critical, and although I do not believe that any such thing as a general war is at all likely, yet it is quite out of the question that things can be left long as they are without serious troubles and collisions, leading at times to loss of life.

THE APACHES.

The Apaches in Southern New Mexico and Arizona are much as they have been, and probably will continue to be until removed entirely from that region. They are a squalid, untrustworthy people, robbers and thieves by nature, and with less form of government than any Indians in this country. They continue to break out from time to time in small parties or individually, and rob and steal in a small but very irritating way. It is about as difficult to watch them as it is a thief in one of our great cities. They require to be hunted down by small detachments

over a large region of country, and give the troops more hard service and the government more expense than tribes ten times more formidable both in numbers and warlike capacity.

It is not possible to go into details about the doings of these Indians or the operations of the troops against them without extending this report beyond reasonable limits. It will be sufficient to say that they have not done much harm, except in a small way, and that the troops are in the field most of the time to prevent this. The Mescalero Agency, near Fort Stanton, serves at present a very good purpose in furnishing a convenient and satisfactory scapegoat for all Indian, or supposed Indian, troubles which occur anywhere in Western Texas. I venture, however, in the case of this Indian reservation, to express the very confident belief that the cause is wholly inadequate to the disease, and that no more raiding of any kind is done from the Stanton reservation than from any other Indian reservation in the country. I trust that, as soon as the necessities of the case elsewhere will admit of it, the Indian reservation near Fort Stanton may be permitted to return to its original obscurity and insignificance.

MILITARY POSTS.

The military posts in this department are generally in good condition. Some of them, by reason of changed circumstances, no longer fulfill any important military object beyond the shelter of troops, and could be dispensed with if accommodations for their garrison could be had elsewhere. Larned, Hays, and Lyon are no longer needed for military defense of the frontier, although the troops now occupying them are at times entirely necessary for this service. The posts themselves are out of position for prompt use in any prospective troubles with Indians; so far out of place that it is not easy to use their garrisons at points where the only Indian troubles are at all likely to occur in the future. One important and well-located point in Western Kansas only is necessary for the protection of that frontier, which, if well garrisoned by an effective force, would accomplish, and accomplish far better and more economically, the objects for which the four posts of Lyon, Wallace, Hays, and Larned were established. That point is Fort Wallace, which commands all the routes traveled by Indians to and from the Indian Territory in the south and the Indian reservations north of the Platte. A glance at the position of this post and the trails leading near it will show this fact.

I desire, therefore, to build at Wallace quarters for at least six companies, four of cavalry and two of infantry. It is now garrisoned by only two companies of infantry. By removing the buildings from Hays to Wallace, ample shelter for this force can be provided at Wallace, and with small expense. I ask authority to do this with the troops, and that a small sum, which I will indicate hereafter as we may find it necessary, be allowed for this purpose.

Contracts have been made for building a four-company post at El Paso, Texas, already named Fort Bliss, by order of the Secretary of War. It will be completed as rapidly as possible. The whole cost of the post under the contracts will be within the sum appropriated by Congress for the purpose.

Concerning Fort Lewis, to be built near Pagosa Springs, Colorado, I have already said enough. The construction of it ought not, in my opinion, to be begun until the location of the Ute Indians be settled definitely, which probably can be done by the 1st of March next.

During last winter it became necessary for the protection of the Kansas frontier to establish a cantonment in the Indian Territory on the North Fork of the Canadian, between Fort Supply and Fort Reno. It is now occupied by six companies of infantry (one mounted), and has served and will serve as an almost complete check to any movements of the Indians in that region toward the north. The troops have huddled themselves, and will get along without suffering this winter, but as this cantonment will be needed and more needed every year, as well for the protection of the Indian Territory against white invasion as for the security of the Kansas frontier against Indians, I ask that an appropriation of \$50,000 be requested this winter to build a permanent post. Whatever may be the condition of the Indian tribes in the future, it is quite certain that this post will be needed to maintain them in possession of their lands, and to protect them against broils and difficulties with the whites, both respectable persons and outlaws.

At Fort Leavenworth new barracks are needed, and have been needed for a long time. The old frame barracks built here many years ago are rotting and becoming dangerous to live in, as well as being a very imperfect shelter for troops. They will not stand much longer and should be replaced by substantial buildings of brick. I ask thirty thousand dollars for this purpose.

TROOPS.

The troops in this department are generally in good condition as to discipline and efficiency. The constant work imposed on them both as laborers and soldiers in the field leaves little of the time possessed by more favored arms of service for drills or other military exercises. It is to be hoped, and indeed always has been hoped, since I have been in the service, that for the interests of the government and the condition and efficiency of the Army, no work as laborers, mechanics, wagon drivers, or other such duties be imposed on soldiers, and that all such labor be performed by persons enlisted or hired for this service. It is scarcely now to be expected that such a hope will ever be fulfilled, but it appears to me that the soldier can be relieved from much of the labor in this direction now imposed on him by increasing the appropriations for such service, even if it be necessary in consequence to decrease them for other necessities. These remarks are specially applicable to the regiments serving in New Mexico, which are either in the field or engaged in labor in no respect suitable to military efficiency for a great part of the time.

I consider it advisable in all respects that from time to time the regiments in this department should be brought in to some such post as this, where a large number of the companies can be concentrated for purposes of discipline and instruction. This post is specially adapted to this purpose, and is, besides, a convenient place for a reserve force, to be used to supply sudden demands for troops both in the Indian Territory and in Western Kansas or elsewhere. This exchange of regiments in turn cannot fail to be of the greatest service to the condition and morale of the troops, and is entirely practicable and safe with the means of communication and transportation at command.

MEXICAN BORDER.

Two years ago when the difficulties concerning the ownership of certain salt lakes near El Paso, in Northwestern Texas, occurred, that part of the Department of Texas embraced within the field of trouble was transferred to this Military Department, and a force was sent from New

Mexico which quieted the commotion and has maintained the peace since in that region. Much complaint has been made from Texas, New Mexico, and Arizona of the incursions of Indians from Mexico into those sections of the country, and counter representations have been made by the Mexican minister to this country of the same character, and charging the same offenses upon Indians and whites from the United States. There is nodoubt some truth in both statements, but I think not to the extent claimed by either party. Along a very sparsely settled frontier between foreign nations, especially along such a frontier as this, there must of necessity always be found outlaws and thieves—red and white—who make use of the shelter of both countries for plying their vocation in safety. There would seem to be no sufficient remedy for this state of things, unless permission be given for the troops of one country to pursue such marauders into the other. If hot pursuit must cease the moment the boundary line is reached, it is useless to expect effectual results. It is not possible, with any such force as can be furnished, to watch every point on this long frontier, so as to prevent this sort of raiding, and although the limited force for this purpose is employed actively and unceasingly, more or less of these things must, in the nature of things, happen. I consider it very unfortunate, in this view, that certain of our Indian reservations have been located so near to this frontier. It has been found, and I believe is, impossible to keep all the men of an Indian reservation upon it, when all are armed and mounted, and when robbery and raiding are and have been the habits of their lives. A great Indian reservation sparsely occupied by armed and mounted men of this character cannot be guarded like a jail or penitentiary, and, indeed, can scarcely be guarded at all with any efficiency, when the guard duty must be conformed to the effort to give these people almost complete latitude of movement in the hope of civilizing and christianizing them. If they could be disarmed and dismounted and a pressure brought to bear upon them, through military force, to remain on their reservations, no doubt a great deal would be gained in restraining them from such raids, but when we consider the immense difficulty in preventing crime even in our large cities, where criminals or the criminal classes are directly under the eyes and hands of a powerful police, it is easy to understand how nearly impracticable it is on these great Indian reservations, when the government actually furnishes to, or allows to be kept by, the prospective offenders the implements necessary to carry on their evil work.

I invite attention in this direction to a misapprehension under which the commanding general Department of Texas appears to lie in regard to the limits of this and his own department. The letter of the commanding general of the Division of the Missouri, defining these limits, states as follows, viz: "The jurisdiction of the officer commanding the troops at Fort Bliss is intended to extend to and include the town of San Elizario on the Rio Grande River, and that portion of El Paso County lying north of an east and west line passing immediately south of that place." It is, therefore, apparent that this department has neither jurisdiction over any part of Texas south of that line, nor is responsible for the crossing of the Rio Grande by Mexican or other Indians anywhere below San Elizario. The commanding general Department of Texas appears to think that this department has jurisdiction and is accountable for whatever happens along the Rio Grande for several hundred miles below El Paso, a misapprehension which it seems has misled him in several instances, and which I request be corrected.

I submit a report from the commanding officer District of New Mexico in relation to the subject-matter of the raids to and from Mexico, made

by Indians or others, to which I invite attention. In general, the Indians in New Mexico have been quiet, anything like hostilities being confined to small raids and robberies, but since this report was completed thus far I have received intelligence of the outbreak of about forty Indians from Ojo Caliente. They killed a small guard over public animals and drove off the stock, and since, news, more or less exaggerated, has been received from a settler in Grant County, near the line of Arizona, giving an account of a fight he had with the band, and that his stock was driven off, and ten persons killed. The whole garrison of Fort Bayard, which is near to the scene of difficulty, is out after these Indians, but no official reports are yet received which enable me to state how much, if any, exaggeration there may be (as there always is) in the first reports of such troubles. I expect every moment to get some authentic news. I consider the force at Bayard quite sufficient to deal with this party of Indians, if no larger than officially reported to me. Colonel Edward Hatch, Ninth Cavalry, commanding that district, is a most active and efficient officer, and thoroughly acquainted with the Indians and the situation, and with the troops at his command this affair may be safely left with him. He has been instructed to use all means at his command to hunt down and recapture this band.

The duties of the chiefs of the staff department at these headquarters have been done with efficiency and thoroughness, and they have, as they are entitled to have, the entire confidence of the government. I transmit inclosed a roster of the department, and a field-return of the troops serving in it.

I am, colonel, respectfully, your obedient servant,

JOHN POPE,

Brevet Major-General, U. S. A., Commanding.

Col. W. D. WHIPPLE,

Assistant Adjutant-General,

Military Division of the Missouri, Chicago, Ill.

P. S.—The outbreak of the White River Utes has occurred since this report was written, but as the troops concerned in the fight with them were sent by the Lieutenant-General from the Department of the Platte and from a post of that department nearest to the White River Agency, the details are not known to me. It is not improper to state, however, that under the present Indian system and policy such outbreaks are certain, in the nature of things, to occur from time to time, and are equally sure to increase in frequency and violence as time goes on. I do not venture to express an opinion as to the causes, though I entertain strong convictions about it. It is very certain that so long as large bodies of Indians, fully armed and equipped for war, are kept at Indian agencies, the temptation to break out from time to time is irresistible, and before such outbreaks can be put down severe losses and great suffering must be expected.

I have always been of the opinion, and have frequently urged it officially, that all reservation Indians should be dismounted and disarmed and then properly fed. In this way only can the horrors of these outbreaks be prevented, and the sooner the fact is recognized the sooner we shall be safe from them. Until it is recognized and acted on we must not be surprised at their frequent recurrence. The small force of the Army is wholly insufficient to garrison these agencies with any force at all sufficient to overawe or control the large bodies of Indians on the reservations mounted and armed as they are, and in each case much time (time fatal to human life and property) is necessarily lost in concentrating out

of our meager Army a force large enough to deal with them. As above stated, the only safety under present circumstances and the present policy is to disarm and dismount all reservation Indians at once so that they cannot even be tempted to these outbreaks. The necessary condition to this act is that the Indians be sufficiently fed and that the appropriations for that purpose be not only ample but made regularly and in time for such subsistence to be delivered to the Indians when needed.

	Area. Square miles.	Population.
Kiowa and Comanche	4, 639	2, 978
Connecticut	4, 750	537, 454
Cherokee	7, 861	18, 672
Massachusetts	7, 800	1, 457, 351
Creek	35, 197	57, 674
Choctaw		
Cherokee		
Chickasaw		
Kansas		
Kiowa and Comanche		
South Carolina	34, 000	705, 606
Indiana	33, 809	1, 680, 637
Maine	35, 000	626, 915

8.—SPECIAL REPORT OF COL. EDWARD HATCH.

HEADQUARTERS DISTRICT OF NEW MEXICO,
Santa Fé, N. Mex., September 6, 1879.

SIR: In compliance with your indorsement of August 11, 1879, referring to me, for investigation and report, certain papers from the Department of State, relative to crimes alleged to have been committed in the frontier States of Sonora, Chihuahua, and Tamaulipas by persons either coming from or flying to American territory, I have the honor to report as follows:

I respectfully invite attention to the indorsement of the commanding general Department of Texas, referring to the territory adjacent to the Rio Grande. It is evident there is some misconstruction as to the limits defined for the Department of the Missouri.

Under instructions from Division of the Missouri, the northern limit of the District of New Mexico is designated as described in inclosed copy of letter from division headquarters dated March 1, 1878. From this it will be seen that the Department of the Missouri has no jurisdiction below San Elizario, 25 miles south of Fort Bliss, and is not responsible for the frontier at San Ignacio, Guadalupe, Quitman, Rice Station, and south of the same, though the troops of this command have always responded promptly to any call of the citizens in that region whenever notified of impending danger from hostile Indians.

Referring to General Ord's report it will be also seen that no troops of the Department of Texas are stationed directly on the Rio Grande River from a station not very distant from Fort Clark, though scouts are extended as far as Paso del Norte, leaving nearly 500 miles of river unguarded, and for which, if the same instructions are in existence in that department that are in force in the District of New Mexico, the Department of Texas is responsible.

Fort Davis, the nearest permanent garrison to the Rio Grande River in Northwestern Texas, is 140 miles from Fort Quitman and 100 miles from Paso del Norte. Cola del Aquilla (which is presumed means Eagle

Springs) is 35 miles from the Rio Grande. I am informed a company is stationed there. On the right bank of the river, beginning 20 miles south of Fort Quitman to del Norte, has always been a favorite resort for Indians.

The troops stationed at Eagle Springs are a long distance from the scene of the most serious troubles near San Ignacio. It is not known that troops have ever occupied stations directly on the Rio Grande from Fort Quitman to Paso del Norte. What the effect would be in checking incursions of wild Indians were troops stationed upon the river, can only be learned by making the experiment. The troops of this district are not responsible for the frontier mentioned.

Attention is respectfully invited to the misconception apparent of the authorities in Mexico, regarding marauding Indians of the frontier of Texas and New Mexico. It seems accepted that all Indians are from United States reservations who commit depredations in Mexico. It is by no means conclusive, though roaming Indians, when hard pressed, may seek asylums on the reservations not recognized as belonging to them. There are bands of wild Indians made up of the different Apache and Comanche tribes, Lipans, Kickapoos, and others, who have never been on reservations, common enemies of all. They roam over a vast country on the frontier of Mexico, Texas, Arizona, and New Mexico. Sometimes the citizens of the bordering Mexican States make what they call a peace with these Indians, lasting, perhaps, a few years, probably without the consent of their governments. The peace is construed to mean that they may live quietly in the mountains of Mexico as long as no incursions are made upon the Mexicans; as to raiding on United States territory, there is no provision that they shall not. These Indian thieves are usually driven into Mexico, when raiding in New Mexico, by our troops (see reports of scouts as follows):

By Captain Carroll, Ninth Cavalry, forwarded September 9, 1878.

By Captain Beyer, one forwarded December 19, 1878, and one forwarded June 27, 1879.

By Lieutenant Wright, forwarded June 25 and July 8, 1879, respectively, and others.

No responsibility can attach to our government for the acts of these Indians, as the troops are not allowed to follow them on Mexican territory, and no concert of action exists between the forces of the two countries with a view to the suppression of Indian raids on New Mexican frontier—Mexican Indians, so called by our soldiers for the reason that they are understood to live in the mountains of Chihuahua. Evidence of the fact exists to-day at Fort Stanton, where a small band of Lipan Indians, five in number, were found on the Mescalero Agency and taken as prisoners to await instructions from the Indian Bureau for their disposition. This is the present condition of the frontier. The only remedy for the Mexican Government is to drive the Indians from their territory. On this side of the line they will be pushed to the extremity of surrendering, when they can be placed upon reservations. The Mexican authorities refer to the hostile Indians being armed with needle-guns by the United States Government. This statement is simply absurd—too preposterous to be thought of for a moment. Our Indian scouts are armed with government arms, and are used to pursue the very Indians accused of marauding. The hostile Indians have no trouble in purchasing arms and ammunition from Mexicans trading with the Indians.

Deserters in our Army, in nearly every case, flee to Mexico with their arms, horses, and equipments, where they are sold by them to

Mexicans, and probably find their way into the hands of the Indians. Stolen arms on this side of the line also find their way to the Indians.

Attention is invited to the raid in which Antonio Silva, Rafael Aphela, and others were killed, where it is stated the Indians took refuge in the mountains of Chihuahua. This alone is evidence sufficient that these Indians are a portion of those referred to, for whom the United States Government is not responsible.

The request that a band of Indians once belonging to the White Mountain Indians, who have for some years lived in Mexico, and who were recently pursued into Mexico by our troops, shall be delivered to our officers near the frontier—we consider the Mexican Government responsible for them. When pursued, they take shelter near Janos, Chihuahua.

Referring to the robbers who infest the frontier; there are undoubtedly a great many of the worst characters. The military are powerless, however, to do anything with them. When on United States territory they are under the jurisdiction of the local laws of the States and Territories. A glance at the names will discover that they are nearly all of Mexican descent. It is a matter of indifference to them whom they rob, Mexican or American.

The treaty settles the matter. If the individual claims that he is a citizen of America, he cannot be given up by the United States authorities under the provisions of the extradition laws. This applies to Mexico also.

Probability of our government obtaining a criminal who has fled to any of the frontier Mexican States is slight, should he be of Mexican descent. Not that the Mexican officials are not inclined to do so; it is beyond their control to produce him when the people or his relatives are inclined to shelter and protect him. As evidence, take the mob at San Elizario; very few, if any, have ever been obtained by the Texas authorities on writs of extradition, though there is no reason for supposing the Mexican governors were inclined to turn them over.

If necessary, a volume can be obtained from Texas, New Mexico, and Arizona, from settlers of that State and Territories, of similar statements made by the Mexicans, of raids, murders, and robberies upon American soil. The misfortune is that the Indians and robbers are merely common enemies, who take advantage of treaty-relations of two countries, a sparsely populated frontier, on the Mexican side inadequately protected. Were the United States troops allowed to follow the Indians when in pursuit, or was the Mexican Government strong enough to prevent the occupancy of their mountain regions by Indians, these bands of Indians would be exterminated.

Very respectfully, your obedient servant,

EDWARD HATCH,

Colonel Ninth Cavalry, Commanding.

The ASSISTANT ADJUTANT-GENERAL,

Department of the Missouri, Fort Leavenworth, Kans.

REPORT OF BRIG. GEN. E. O. C. ORD.

HEADQUARTERS DEPARTMENT OF TEXAS,

San Antonio, Texas, October 1, 1879.

SIR: I have the honor of submitting my annual report, with abstracts and documents, marked A to E, inclusive.

A.—Roster of troops, indicating posts, sub-posts, &c., and their garrisons.

Of the thirteen sub-posts, or camps, eight have been established in the District of the Pecos, by the district commander, under instructions from these headquarters, of April 30, 1878, with a view of making safe the mail-route and settlements in its vicinity, by forcing the Indians from that region and keeping them out of it. The intended result has, practically, been accomplished. All Indians penetrating the country have been so hotly pressed by the troops as to prevent their doing much damage—only three murders, by marauders, during the year. Last year there were seventeen in the region referred to.

B.—Movement of troops.

The good order in Mexico, and the cessation of raids from that country, has enabled a considerable portion of the troops, held in reserve to carry out the order of the President, dated June 1, 1877, to cross the border in pursuit of raiders, to be diverted for use in exploring our own wild country, and occupying the water-holes frequented by raiding bands from our own Indian reservations. Cut off from water, the Indians cannot traverse the country.

C.—Statement of expeditions and scouts, and the distances marched—total 40,100 miles; an increase over that in last report of 18,740 miles. The activity of the troops, in field service, is thus indicated at a glance.

I beg especial attention to reports—copies herewith marked F—from Lieutenant Bullis, Twenty-fourth Infantry, and Lieutenant McMartin, Twenty-fifth Infantry, in the matter of scouts made by them after raiders, on Texas ranches, from the Fort Stanton Reservation. The latter has led to instructions, dated September 9, 1879, from the Department of the Interior, “to use every effort to detect all Indians upon his (the Mescalero—Fort Stanton) reservation that engage in raiding, and recover and restore all property taken by them, and deliver the guilty parties to the proper authorities for punishment.” Those instructions are very good as far as they go; but as military officers, who pursue the Indian raiders, cannot (under the act of Congress promulgated in General Orders No. 71, Headquarters of the Army, Adjutant-General’s Office, series of 1878) aid in executing the law, or punishing criminals, they are not the “proper authorities” referred to. Therefore, I venture to suggest that some understanding in the matter be had with the proper civil authorities of Texas.

D.—Abstract of persons killed, wounded, &c., by Indians and Mexicans since October 1, 1878. It exhibits a decrease in number of 34 since the last report, which enumerated 52—a gratifying result.

E.—Report of trials by courts-martial since October 1, 1878; from which it will be seen that the number of cases, for the past year, is materially less than for the preceding period; the number of military convictions, little more than one-half; that theft, and kindred crimes, heretofore frequent among colored troops, have perceptibly diminished; and that the number of desertions has not diminished—this last attributable, perhaps, to the arrival of enlisted men from the North, who do not like the hard work and discomfort of the desert country of West Texas, and, possibly, an intention of certain recruits, when enlisted at the North and elsewhere, to desert on reaching a convenient locality.

EXTRADITION.

By reason of revolutions the Mexican population along the river is of a mongrel character: deserters from the contending forces; Mexican soldiery sent to the border and there disbanded; remnants of bands of wild raiding, or refugee, Indians, who formerly found safety in the deserts and unexplored mountains of Mexico or Texas, and who have gradually

learned to trade and mix with the people of its border towns; and smugglers—all go to swell the lawless element. To such a population, ordinary treaties, or modes of administering justice, will not apply, especially when it is considered that under the treaty of extradition now in force the local district judges are commissioners to extradite, and elected by a population more or less liable for extraditable offenses, committed on the opposite side. The conclusion is reasonable that when the existing treaty was made, the character and number of the border refugees was not understood. Moreover, under its provisions neither country is bound to extradite its own citizens, and, generally, to evade the penalties of the treaty, citizenship, to suit their necessities, can be proven by offenders.

The country in the vicinity of the banks of the Rio Grande is peculiar, and as little understood as is the character of the people. Along the lower river, ascending to Camargo, it is a rich valley, thickly timbered in the bottoms, with sheep and cattle ranches inland from the timber. Thence to Laredo it is broken, with small patches of good land. Above Laredo to the mouth of the Pecos it is a cactus belt, with streams few and far between, with little cultivation, except near San Felipe—there only by irrigation. The cactus belt and the plateau are well adapted to sheep-raising. Above the mouth of the Pecos, to the valley of San Elizario and El Paso, where again there are irrigable lands, the river cuts its way through wild and craggy mountain ranges and along the beds of immense cañons. Between the mountain ranges are plains, valleys, and gorges, rapidly undergoing exploration on the Texas side, and found well adapted to grazing. The ranges are much better supplied with water than was supposed, and in proportion as they are explored, valuable discoveries of precious metals result.

From the mouth of the river to El Paso, the population of the border counties is, with few exceptions, Mexican, or of Mexican origin. Americans are pushing west and northwest, and as soon as the new military road—much nearer the river—from Fort Clark to Fort Davis, now under construction by the troops of this department, shall have been opened, quite a number of cattle ranches will be established near and north of the Rio Grande, and along the Pecos. These are the people, with those living in the cities near to and on both sides of the river, for whose benefit a new treaty should be arranged; for their interests, as a rule, are identical in both countries.

PROHIBITORY DUTIES.

The prohibitory duties on animals and food work as much hardship for the Mexican as for the American citizens, for the reason that drought seldom occurs on both sides of the river the same year. For instance, four years ago corn was cheap in Mexico and dear in Texas, and some contractors furnished the government horses with corn bought in Mexico. Duties being high, it was generally smuggled across. In 1877 and 1878, drought, almost a famine, prevailed in North Coahuila and Chihuahua, and the Mexican troops and horses had to be supplied from this side. Owing to high duties, their contractors, too, generally evaded them. But the poor citizens who, during the seasons referred to, could not afford to employ smugglers, had to pay enormous prices for their corn on the side where the drought prevailed. This year, again, the drought is in Texas, the crops are short, and the price of corn high. Of course a low tariff, both ways, for food and stock, would be the remedy for this state of affairs, and would redound to the benefit of both governments, because duties would then be paid upon a much larger amount of supplies, which,

being cheaper, poor as well as rich could buy. Now, owing to the small amount of trade carried on, nearly all the heavy duties, both ways, are evaded, and the flocks and herds on one side of the river may starve to death, in time of drought, because they cannot be driven across, where there may be food, without paying duties or undergoing the risk of confiscation.

RAILROADS.

It will be difficult to convince the leading politicians in Mexico that any railroad from the United States into that country will not be simply opening a road for hordes of barbarous and grasping Yankees to rush in and possess the land, regardless of the rights of present owners or the independence of Mexico. They have an idea that railroad companies in the United States are generally government agents; that the roads are built to forward some special governmental policy—such as the annexation of Mexico—and that Mexico is a country so much more delightful and richer than the United States, and so thinly peopled in comparison, that the poor and hungry Yankees, by thousands, are only waiting for some inlet to take possession of it. The contrary would prove true; and if one or more roads were built extending into Mexico—unless the wages and the comforts of the laboring classes should become materially improved—the flow of poor and underpaid labor would be in the direction of the United States. The peons, or operatives, of Mexico have the simple habits of the Chinese, and all ordinary labor in that country averages less than one-half the wages that similar labor commands in the United States. Cultivated farms are found only where there is water for irrigation, and there are desert stretches of from thirty to fifty miles between the waters. In the little valleys, supplied by streams from the mountains, towns or villages—according to the size of the streams—find irrigable lands, where the non-progressive population can support life. To what extent the laboring classes would become consumers of our manufactures, were they able to earn the means and afforded the opportunities to purchase, is a question which, in my opinion, should be settled before we expend large sums upon railroads referred to.

There are areas of rich lands in certain districts—like the valley around the city of Mexico—but they are occupied now by the toiling native races, and the experience of numbers of Americans, who went to that country to settle and have returned, is that there is no room there for American farmers.

MINES.

The extent and productiveness of the mines in Mexico, and the inducements, or encouragement, afforded American miners and mechanics to invest their time and money in mining enterprises in that country, are also questions which, in my view, should be thoroughly understood before citizens of the United States venture into such a country, beyond the protection of our own laws, to seek their fortunes. As I have remarked above, all ordinary labor is very cheap in Mexico; their miners will work for a few dollars per month; their mines are such as require capital to work them; the mining laws are peculiar, and their administration intrusted to local authorities not partial to Americans; and, in addition, taxes—export duties and assessments—are laid upon ores or bullion, with little regard to the interest of mining enterprises, or the future development of the country.

CROSSING THE BORDER.

I respectfully invite attention to the earnest and successful efforts of the Mexican authorities—especially those of Generals Trevino and Canales—to suppress raiding from their side of the river: the condition of affairs which rendered necessary the order, of June 1, 1877, to cross the border, in my opinion, no longer exists, as the Mexican Government has shown its ability and determination to put a stop to such invasions of the United States.

The President having, in his annual message of last December, referred to his desire, as soon as practicable with due regard to the protection of the lives and property of our own citizens, to recognize this ability on the part of the Mexican Government, is my reason for here referring to the subject, and therefore I recommend such recognition. If such action should be had, I am of the further opinion that the discretionary authority, similar to that exercised by the department commander previous to the issue of the order, will suffice, provided the Mexican Government will continue the same force along their frontier that has been found necessary to effectively restrain lawless bands from raiding into our territory.

ADDITIONAL QUARTERS.

In 1877, six companies of cavalry and four of artillery were ordered to this department, three companies of cavalry left the department, and thus the strength of my command was increased by seven companies. Moreover, the garrisons of Forts Quitman, Bliss, and Richardson, and one company from Fort Griffin, have been called in, so that, allowing for quarters since erected for two companies, I have eleven additional companies to quarter, and no fit place for that purpose. I need not say that it is very disheartening to the officers to be compelled, through the cold winters and hot summers of West Texas, to keep their wives and children in tents, shanties, or brush huts, or to have them packed in attics. The want of quarters for so many necessarily crowds all the others, and a glance at the amount of service—40,100 miles of scouts and expeditions, 18,740 miles more than last year—performed by the troops, in a country like West Texas, ought to secure to them some comfort, after a return from their long and dreary marches over trackless wastes. One result of such discomfort, even under rather favorable circumstances, is, that of eleven officers who reached the department with four batteries of artillery only four remain, and only one of them has his family with him.

I have, as earnestly as is consistent with propriety, urged the necessity of an appropriation of two hundred thousand dollars for four additional posts, needed to replace those which have been vacated and others which it is proposed to vacate as rapidly the larger settlements get beyond them or the protection of new settlements may require. The erection of four posts would provide quarters for the eleven companies, now unprovided.

I am, very respectfully, your obedient servant,

E. O. C. ORD,

Brigadier-General, Commanding.

The ADJUTANT-GENERAL,

Military Division of the Missouri, Chicago, Ill.

ABSTRACT A.—Roster of troops, Department of Texas, October, 1879.

[San Antonio, Tex.]

Brig. Gen. E. O. C. ORD, United States Army, commanding.

PERSONAL STAFF.

Capt. H. G. Brown, Twelfth Infantry, aide-de-camp.
 First Lieut. J. C. Ord, Twenty-fifth Infantry, aide-de-camp.

DEPARTMENT STAFF.

Maj. Thomas M. Vincent, Adjutant-General's Department, adjutant-general.
 †Lieut. Col. J. S. Mason, Fourth Infantry, acting assistant inspector-general.
 Second Lieut. W. T. Howard, Second Artillery, acting judge-advocate.
 Maj. Benjamin C. Card, Quartermaster's Department, chief quartermaster.
 Capt. C. B. Penrose, Commissary of Subsistence, chief commissary of subsistence, depot and purchasing commissary of subsistence, San Antonio, Tex.
 Surg. J. E. Smith, Medical Department, medical director.
 Maj. C. M. Terrell, Pay Department, chief paymaster.
 *Capt. W. R. Livermore, Corps of Engineers, chief engineer officer,
 Maj. Clifton Comly, Ordnance Department, chief ordnance officer, and commanding San Antonio Arsenal.
 First Lieut. A. M. Raphall, Eleventh Infantry, on special duty at department headquarters.

OFFICERS OF THE QUARTERMASTER'S, MEDICAL, AND PAY DEPARTMENTS, ETC.

Quartermaster's department.

Capt. T. J. Eckerson, Fort Brown, Tex.
 Capt. George W. Bradley, depot quartermaster,
 San Antonio, Tex.
 Capt. E. B. Atwood, Fort Worth, Tex.

Medical department.

Surg. C. E. Goddard, Fort McKavett.
 Asst. Surg. W. E. Waters, Fort Clark.
 *Asst. Surg. H. E. Brown, San Antonio.
 Asst. Surg. M. K. Taylor, San Antonio.
 Asst. Surg. Frank Meacham, Fort Brown.
 †Asst. Surg. J. V. DeHanne, Fort Concho.
 Asst. Surg. R. H. White, Fort Ringgold.
 †Asst. Surg. J. B. Girard, Fort Davis.
 †Asst. Surg. A. A. Yeomans, Fort Griffin.
 Asst. Surg. J. H. T. King, Fort McIntosh.
 Asst. Surg. Ezra Woodruff, Fort Stockton.
 Asst. Surg. J. D. Hall, Fort Concho.
 Asst. Surg. C. B. Byrne, Fort Duncan.
 †Asst. Surg. E. T. Comegys, Fort Clark.
 Asst. Surg. W. C. Shannon, San Felipe.
 Asst. Surg. J. L. Powell, Fort Griffin.
 †Asst. Surg. W. F. Carter, Fort Concho.

Acting assistant surgeons: J. P. Arthur, district of the Nueces; J. B. Baggett, San Diego; A. L. Buffington, Fort Ringgold; †Moses Cooper, Fort Brown; J. A. Wolf, Fort McKavett; †M. F. Price, Fort Stockton; †S. L. S. Smith, Fort Concho; †J. R. Harmer, Fort Duncan; †T. B. Davis, Fort Ringgold; E. McLoon, Fort Clark; †J. F. Ward, Fort Davis; †J. S. McLain, Fort Clark; †W. C. Henderson, Fort Concho; S. M. Finley, Fort Brown; P. Brumund, Fort Davis; †B. F. Kingsley, Fort Davis.

Pay department.

Maj. A. E. Bates, San Antonio.
 Maj. C. I. Wilson, Fort Concho, temporarily at San Antonio.
 Maj. J. R. Wasson, San Antonio, temporarily at Fort Brown.
 Maj. George F. Robinson, San Antonio, temporarily.

Post chaplains.

§ E. B. Tuttle, Fort Duncan.
 B. L. Baldridge, Fort Stockton.
 G. W. Dunbar, Fort Concho.

DISTRICTS OF THE DEPARTMENT.

District of the Rio Grande.

[Headquarters at Fort Brown, Tex.]

Col. George Sykes, Twentieth Infantry, commanding.
 Second Lieut. Alfred Reynolds, Twentieth Infantry, acting assistant adjutant-general, temporarily.
 Capt. T. J. Eckerson, A. Q. M., U. S. A., chief and disbursing quartermaster.

District of the Nueces.

[Headquarters at Fort Clark, Tex.]

Col. R. S. Mackenzie, Fourth Cavalry, commanding.
 First Lieut. J. H. Dorst, Fourth Cavalry, acting assistant adjutant-general.

District of the Pecos.

[Headquarters at Fort Concho, Tex.]

Col. B. H. Grierson, Tenth Cavalry, commanding.
 First Lieut. R. G. Smither, Tenth Cavalry, acting assistant adjutant-general.

District of North Texas.

[Headquarters at Fort McKavett, Tex.]

Col. D. S. Stanley, Twenty-second Infantry, commanding.
 First Lieut. H. H. Ketchum, Twenty-second Infantry, acting assistant adjutant-general.

Subposts.

Santa Maria to Fort Brown, Company D, Eighth Cavalry.
 Edinburg to Fort Ringgold, Company H, Eighth Cavalry.
 Grierson's Springs, Company F, Tenth Cavalry; Eagle Springs, detachment of Tenth Cavalry and Twenty-fifth Infantry; Seven Springs, detachment of Tenth Cavalry and Twenty-fifth Infantry; Camp Charlotte, Company E, Tenth Cavalry, and Company A, Twenty-fifth Infantry; Pena Colorado, Companies F and G, Twenty-fifth Infantry; Frazier's Rancho, Company B, Tenth Cavalry; Escondidos, detachment of Tenth Cavalry and Twenty-fifth Infantry; Pine, or Bull, Springs, Company K, Tenth Cavalry and detachment Twenty-fifth Infantry; to Forts Concho, Davis, and Stockton.

FIELD AND STAFF OFFICERS, BY REGIMENTS.

Field and staff, Fourth Cavalry.

[Headquarters at Fort Clark, Tex.]

Col. R. S. Mackenzie, Fort Clark, Tex.
 Lieut. Col. J. P. Hatch, Fort Sill, Ind. T.

‡Maj. J. K. Mizner, Fort Reno, Ind. T.
 ‡Maj. H. C. Bankhead, Fort Clark, Tex.
 ‡Maj. H. E. Noyes, Fort Clark, Tex.
 First Lieut. J. H. Dorst, adjutant, Fort Clark, Tex.
 First Lieut. A. E. Wood, regimental quartermaster, Fort Clark, Tex.

ABSTRACT A.—Roster of troops, Department of Texas, October, 1879—Continued.

Field and staff, Eighth Cavalry.

[Headquarters at Fort Ringgold, Tex.]

- *Col. T. H. Neill, Fort Ringgold, Tex.
 †Lieut. Col. N. B. Sweitzer, Fort Ringgold, Tex.
 †Maj. D. R. Clendenin, Fort Ringgold, Tex.
 †Maj. J. A. Wilcox, Fort Clark, Tex.
 *Maj. S. S. Sumner, Fort Brown, Tex.
 †First Lieut. A. G. Hennisee, adjutant, Fort Ringgold, Tex.
 *First Lieut. G. F. Foote, regimental quartermaster, Fort Ringgold, Tex.

Field and staff, Tenth Cavalry.

[Headquarters at Fort Concho, Tex.]

- Col. B. H. Grierson, Fort Concho, Tex.
 †Lieut. Col. J. F. Wade.
 †Maj. G. W. Schofield, Fort Sill, Ind. T.
 †Maj. N. B. McLaughlin, Fort Davis, Tex.
 †Maj. Anson Mills, Fort Concho, Tex.
 †First Lieut. R. G. Smither, adjutant, Fort Concho, Tex.
 †First Lieut. W. Davis, jr., regimental quartermaster, Fort Concho, Tex.

Field and staff, Twentieth Infantry.

[Headquarters at Fort Brown, Tex.]

- Col. George Sykes, Fort Brown, Tex.
 †Lieut. Col. L. C. Hunt, Fort Clark, Tex.
 †Maj. C. R. Layton, Fort Brown, Tex.

- ‡First Lieut. J. B. Rodman, adjutant, Fort Brown Tex.
 †First Lieut. T. W. Lord, regimental quartermaster, Fort Brown, Tex.

Field and staff, Twenty-second Infantry.

[Headquarters at Fort McKavett, Tex.]

- Col. D. S. Stanley, Fort McKavett, Tex.
 Lieut. Col. E. S. Otis, Fort McKavett, Tex.
 †Maj. A. L. Hough, Fort Gibson, Ind. T.
 †First Lieut. H. H. Ketchum, adjutant, Fort McKavett, Tex.
 †First Lieut. O. M. Smith, regimental quartermaster, Fort McKavett, Tex.

Field and staff, Twenty-fourth Infantry.

[Headquarters at Fort Duncan, Tex.]

- ‡Col. J. H. Potter, Washington, D. C.
 Lieut. Col. John E. Yard, Fort Duncan, Tex.
 *Maj. R. F. O'Beirne, Fort Ringgold, Tex.
 *First Lieut. W. H. W. James, adjutant, Fort Duncan, Tex.
 †First Lieut. B. M. Custer, regimental quartermaster, Fort Duncan, Tex.
 Chaplain J. C. Lavery, Fort Duncan, Tex.

Field and staff, Twenty-fifth Infantry.

[Headquarters at Fort Davis, Tex.]

- *Col. G. L. Andrews, Fort Davis, Tex.
 Lieut. Col. M. M. Blunt, Fort Stockton, Tex.
 †Maj. Joseph Bush, Fort Concho, Tex.
 †First Lieut. D. B. Wilson, adjutant, Fort Davis, Tex.
 †First Lieut. H. P. Ritzius, regimental quartermaster, Fort Davis, Tex.
 Chaplain G. G. Mullins, Fort Davis, Tex.

COMPANY OFFICERS AND STATIONS.

Fourth Cavalry.

- Company A, at §§Fort Clark, Tex.—*Capt. E. B. Beaumont, *First Lieut. James Parker, Second Lieut. James Lockett.
 Company D, at §§Fort Clark, Tex.—Capt. John Lee, †First Lieut. H. H. Bellas, Second Lieut. M. J. Jenkins.
 Company E, at Fort Duncan, Tex.—Capt. Henry Sweeney, First Lieut. C. A. P. Hatfield, Second Lieut. G. E. Huse.
 Company K, at §§Fort Clark, Tex.—†Capt. E. M. Heyl, First Lieut. Matthew Leeper, jr.
 Company L, at §§Fort Clark, Tex.—Capt. T. J. Wint, First Lieut. C. H. Murray.
 Company M, at Fort Clark, Tex.—Capt. C. M. Callahan, †First Lieut. L. O. Parker, Second Lieut. J. B. Richards, jr.

Eighth Cavalry.

- Company A, at §§Fort Clark, Tex.—Capt. A. B. Wells, First Lieut. J. B. Hickey, Second Lieut. J. Guest, jr.
 Company B, at §§Fort Clark, Tex.—Capt. J. D. Stevenson, First Lieut. O. B. Boyd, Second Lieut. E. A. Ellis.
 Company C, at Fort Brown, Tex.—Capt. G. W. Chilson, *First Lieut. H. W. Sprole, Second Lieut. C. H. Lester.
 Company D, at †Fort Brown, Tex.—Capt. J. F. Randlett, First Lieut. S. W. Fountain, Second Lieut. J. H. King.
 Company E, at San Diego, Tex.—Capt. A. B. Kauffman, †First Lieut. H. S. Weeks, Second Lieut. H. F. Kendall.
 Company F, at Fort McIntosh, Tex.—Capt. A. P. Caraher, First Lieut. F. E. Phelps, †Second Lieut. G. E. Pond.
 Company G, at Fort Ringgold, Tex.—Capt. E. G. Fechet, First Lieut. Edmund Luft, Second Lieut. Q. O. M. Gillmore.
 Company H, at †Fort Ringgold, Tex.—†Capt. H. J. Farnsworth, First Lieut. R. A. Williams, Second Lieut. J. W. Pinder.
 Company I, at Fort Brown, Tex.—Capt. J. H. Mahuken, †First Lieut. E. E. Wood, Second Lieut. C. M. O'Connor.
 Company K, at San Felipe, Tex.—†Capt. J. H. Coester, First Lieut. J. W. Pullman, Second Lieut. W. A. Shunk.

- Company L, at Fort Brown, Tex.—Capt. L. T. Morris, First Lieut. E. A. Godwin, Second Lieut. W. J. Elliott.
 Company M, at Fort Clark, Tex.—†Capt. S. B. M. Young, First Lieut. J. M. Ropes, Second Lieut. J. A. Johnston.

Tenth Cavalry.

- Company B, at †Fort Stockton, Tex.—†Captain Thomas J. Spencer, †First Lieut. L. H. Orleman, Second Lieut. John Bigelow, jr.
 Company C, at Fort Davis, Tex.—Capt. C. D. Viele, †First Lieut. W. H. Beck.
 Company D, at †Fort Concho, Tex.—Capt. A. S. B. Keyes, First Lieut. C. R. Ward, Second Lieut. C. H. Grierson.
 Company E, at †Fort Concho, Tex.—Capt. J. M. Kelley, First Lieut. L. P. Hunt, Second Lieut. G. H. Evans.
 Company F, at †Fort Concho, Tex.—†Capt. W. B. Kennedy, †First Lieut. J. T. Morrison.
 Company H, at Fort Davis, Tex.—Capt. L. H. Carpenter, †First Lieut. W. R. Harmon, Second Lieut. C. G. Ayres.
 Company K, at †Fort Davis, Tex.—Capt. T. C. Lebo, †First Lieut. S. L. Woodward, Second Lieut. R. D. Read, jr.
 Company L, at Fort Stockton, Tex.—†Capt. G. A. Armes, †First Lieut. M. M. Maxon, Second Lieut. Calvin Esterly.
 Company M, at Fort Concho, Tex.—Capt. S. T. Norvell, First Lieut. C. E. Nordstrom, Second Lieut. M. F. Eggleston.

Second Artillery.

- Company E, at San Antonio, Tex.—†Capt. W. McK. Dunn, jr., First Lieut. A. C. Taylor, †Barnet Wager, Second Lieut. *W. A. Simpson.
 Company F, at Fort Clark, Tex.—Capt. E. B. Williston, †First Lieut. W. B. Vose, †H. Gifford, Second Lieut. †W. T. Howard.
 Company G, at San Antonio, Tex.—†Capt. C. A. Woodruff, †First Lieut. C. E. Kilbourne, *E. S. Curtis.
 Company I, at Fort Clark, Tex.—Capt. J. I. Rodgers, †First Lieut. G. S. Grimes, N. Wolfe, †Second Lieut. V. H. Bridgman.

ABSTRACT A.—Roster of troops, Department of Texas, October, 1879—Continued.

Twentieth Infantry.

Company A, at San Antonio, Tex.—Capt. J. H. Paterson, First Lieut. Herbert Cushman, §Second Lieut. Palmer Tilton.
 Company B, at Fort Brown, Tex.—Capt. J. C. Bates, First Lieut. W. H. Hamner, Second Lieut. J. A. Irons.
 Company C, at Fort Clark, Tex.—Capt. R. M. Taylor, First Lieut. Alexander Wishart.
 Company D, Fort Brown, Tex.—Capt. C. O. Bradley, First Lieut. J. F. Huston, Second Lieut. H. S. Foster.
 Company E, at Fort Clark, Tex.—Capt. William Fletcher, †First Lieut. H. W. Howgate, *Second Lieut. F. D. Sharp.
 Company F, at §§Fort Clark, Tex.—Capt. J. S. McNaught, First Lieut. Paul Harwood, Second Lieut. H. A. Greene.
 Company G, at Fort Brown, Tex.—Capt. W. S. McCaskey, First Lieut. J. A. Manley, Second Lieut. J. C. Dent.
 Company H, at Fort Clark, Tex.—Capt. J. N. Coe, †First Lieut. John Bannister, ††Second Lieut. G. L. Rousseau.
 Company I, at Fort Brown, Tex.—Capt. Loyd Wheaton, First Lieut. W. R. Maize, Second Lieut. J. G. Gates.
 Company K, at Fort Brown, Tex.—†Capt. A. A. Harbach, First Lieut. W. H. Low, jr., Second Lieut. Alfred Reynolds.

Twenty-second Infantry.

Company A, at Fort Griffin, Tex.—Capt. J. B. Irvine, †First Lieut. G. S. L. Ward, Second Lieut. R. N. Getty.
 Company B, at Fort McKavett, Capt. John Hartley, †First Lieut. F. L. Davies.
 Company C, at Fort McKavett, Tex.—Capt. P. M. Thorne, †First Lieut. J. McA. Webster, †Second Lieut. Theodore Mosher, jr.
 Company G, at Fort McKavett, Tex.—Capt. C. W. Miner, First Lieut. B. C. Lockwood, Second Lieut. M. C. Martin.
 Company H, at Fort McKavett, Tex.—Capt. C. D. Poole, †First Lieut. W. H. Kell, Second Lieut. A. C. Sharpe.
 Company I, at Fort McKavett, Tex.—Capt. Francis Clarke, First Lieut. J. M. Gore, Second Lieut. J. J. Crittenden.

Twenty-fourth Infantry.

Company A, at Fort Duncan, Tex.—Capt. F. M. Orandal, †First Lieut. Henry Wygant, Second Lieut. Theodore Decker.

Company B, at Fort Duncan, Tex.—Capt. J. B. Nixon, *First Lieut. J. S. Marsteller.
 Company C, at Fort Ringgold, Tex.—†Capt. H. C. Corbin, First Lieut. C. J. Crane, Second Lieut. A. A. Augur.
 Company D, at Fort McIntosh, Tex.—Capt. J. M. Thompson, First Lieut. J. R. Pierce.
 Company E, at Fort McIntosh, Tex., †Capt. J. W. Clous, †First Lieut. H. F. Leggett, §Second Lieut. S. P. Wayman.
 Company F, at Fort Duncan, Tex.—Capt. C. C. Hood, First Lieut. M. C. Wessells, Second Lieut. J. J. Brereton.
 Company G, at Fort Ringgold, Tex.—Capt. Lewis Johnson, †First Lieut. J. L. Bullis, *Second Lieut. B. W. Leavell.
 Company H, at Fort McIntosh, Tex., Capt. J. C. Gilmore, †First Lieut. J. L. Clem, Second Lieut. Charles Dodge, jr.
 Company I, at Fort Ringgold, Tex.—†Capt. A. C. Markley, First Lieut. J. I. Kane, Second Lieut. H. L. Ripley.
 Company K, at Fort Ringgold, Tex.—Capt. J. N. Morgan, †First Lieut. F. H. Mills.

Twenty-fifth Infantry.

Company A, at |||| Fort Concho, Tex.—Capt. John W. French, §First Lieut. Harry Reade, Second Lieut. J. H. Lane.
 Company B, at Fort Stockton, Tex.—Capt. Charles Bentzoni, †First Lieut. W. I. Sanborn, Second Lieut. R. H. R. Loughborough.
 Company C, at Fort Stockton, Tex.—Capt. C. F. Robe, First Lieut. O. J. Sweet, Second Lieut. E. F. Glenn.
 Company D, at Fort Stockton, Tex.—Capt. D. D. Van Valzah, †First Lieut. W. S. Scott.
 Company E, at |||| Fort Davis, Tex.—Capt. David Schooley, §First Lieut. E. J. Stivers.
 Company F, at |||| Fort Stockton, Tex.—†Capt. Andrew Geddes, First Lieut. H. B. Quimby, Second Lieut. J. McMartin.
 Company G, at |||| Fort Concho, Tex.—§Capt. F. A. Kendall, First Lieut. Wallace Tear, *Second Lieut. C. L. Hodges.
 Company H, at Fort Davis, Tex.—Capt. M. L. Courtney, †First Lieut. J. C. Ord.
 Company I, at Fort Davis, Tex.—†Capt. Gaines Lawson, First Lieut. H. H. Landon, *Second Lieut. George Andrews.
 Company K, at Fort Concho, Tex., Capt. C. N. Gray, First Lieut. James Pratt.

RECAPITULATION, BY COMPANIES, AT POSTS.

FORT BROWN.—Headquarters, and B, D, G, I, K, 20th Infantry; C, D, I, L, 8th Cavalry.....	9
FORT CLARK.—Headquarters, and A, D, K, L, M, 4th Cavalry; A, B, M, 8th Cavalry; F, L, 2d Artillery; C, E, F, H, 20th Infantry.....	14
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FORT DAVIS.—Headquarters, and E, H, I, 25th Infantry; C, H, K, 10th Cavalry.....	6
FORT DUNCAN.—Headquarters, and A, B, F, 24th Infantry; E, 4th Cavalry.....	4
FORT GRIFFIN.—A, 22d Infantry.....	1
FORT MCINTOSH.—D, E, H, 24th Infantry; F, 8th Cavalry.....	4
FORT MCKAVETT.—Headquarters, and B, C, G, H, I, 22d Infantry.....	5
FORT RINGGOLD.—Headquarters, and G, H, 8th Cavalry; C, G, I, K, 24th Infantry.....	6
SAN ANTONIO.—E, G, 2d Artillery; A, 20th Infantry.....	3
SAN DIEGO.—E, 8th Cavalry.....	1
SAN FELIPE.—K, 8th Cavalry.....	1
FORT STOCKTON.—B, L, 10th Cavalry; B, C, D, F, 25th Infantry.....	6
Total.....	7

THOMAS M. VINCENT,
Assistant Adjutant-General.

HEADQUARTERS DEPARTMENT OF TEXAS,
 San Antonio, Tex., October 1, 1879.

- * On leave of absence.
- § On sick leave.
- † On detached service within the department.
- ‡ On detached service without the department.
- †† In arrest, undergoing trial by or sentence of general court-martial.
- || Under orders to join.
- |||| In the field, in the district of the Pecos.
- §§ In the field, in the district of the Nueces.
- ¶ In the field, in the district of the Rio Grande.
- ††† In hands of civil authorities.

ABSTRACT C.—Tabular statement of expeditions and scouts against Indians, &c., made in the Department of Texas during the year ending September 30, 1879.

M L	Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
				Officers.	Enlisted men.	Indians.	Citizens.				
Fort Brown....	Capt. J. F. Randlett, Eighth Cavalry.	D, 8th Cavalry	2	54	.....	.....	Oct. 3, 1878	Oct. 27, 1878	457	Daily patrols were made from the camp at Santa Maria, Tex., to ascertain if any raiders or Indians were in the vicinity. None seen.
	Capt. L. T. Morris, Eighth Cavalry.	L, 8th Cavalry.	2	39	.....	.....	Nov. 3, 1878	Nov. 29, 1878	312	Daily patrols from Santa Maria, Tex., were made, by detachments, in search of Indians or raiders, without discovering any sign.
	Capt. L. T. Morris, Eighth Cavalry.	L, 8th Cavalry.	2	40	.....	.....	Dec. 2, 1878	Dec. 29, 1878	510	Daily patrols, by detachments, made from the camp at Santa Maria, Tex., to ascertain if any raiders or Indians were in the vicinity. None seen.
	Second Lieut. J. B. Hickey, Eighth Cavalry.	I, 8th Cavalry.	1	13	.....	.....	Mar. 29, 1879	Apr. 1, 1879	76	On a scout among the ranches in a northerly direction from Santa Maria; visited twelve or more between Santa Maria and Santa Rita, and Petitas and Rosano. Country quiet, and no sign of Indians seen.
	Capt. L. T. Morris, Eighth Cavalry.	L, 8th Cavalry.	2	62	.....	.....	Jan. 1, 1879	Feb. 26, 1879	557	Weekly scouting parties sent out from the camp at Santa Maria. Scouts made up and down river, and into the interior. No sign of Indians.
	Capt. J. H. Mahnken, Eighth Cavalry.	I, 8th Cavalry.	2	48	.....	.....	Mar. 4, 1879	Apr. 27, 1879	463	The company remained in camp at Santa Maria, from which point weekly scouting parties were sent out in search of Indians or raiders.
	First Lieut. S. W. Fountain, Eighth Cavalry.	Detachment D, 8th Cavalry.	.....	.....	.....	.....	Apr. 15, 1879	May 1, 1879	340	For the purpose of obtaining all the information attainable in reference to the country between Edinburg and San Diego, marched to Retana ranch, passing San José and Coscolino ranches; thence to the San Anita and Cardinia ranches and El Cayote; continued to Las Polomais, Blanco, and Encinal de Pasos ranches, Palito Blanco, &c., to San Diego, and returned via King's ranch and Corpus Christi road, to Fort Brown.
	Capt. G. W. Chilson, Eighth Cavalry.	C, 8th Cavalry.	3	56	.....	.....	May 9, 1879	May 23, 1879	88	Daily patrols made, by detachments of company, while in camp at Santa Maria, Tex.
Fort Clark.....	Second Lieut. J. B. Hickey, Eighth Cavalry.	Detachment I, 8th Cavalry.	.....	.....	.....	.....	Feb. 10, 1879	Mar. 1, 1879	292	From Fort Brown to San Antonio and return, under instructions to report upon condition of road between San Diego and Brownsville. Found an abundant supply of water in lagoons, and good grazing, and obtained measurement of distance by use of odometer.
	First Lieut. W. C. Miller, Fourth Cavalry.	L, 4th Cavalry	1	47	3	.....	Oct. 9, 1878	Oct. 20, 1878	267	To search for Indians reported in the vicinity. Proceeded to Turkey Creek, Cox's settlement, and along Nueces River toward Rio Grande. No Indians seen or information of their presence obtained.

ABSTRACT C.—*Tabular statement of expeditions and scouts against Indians, &c., made in the Department of Texas, &c.*—Continued.

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
Fort Clark.....	Second Lieut. E. A. Ellis, Eighth Cavalry.	B, 8th Cavalry.	1	41	.....	.....	June 27, 1878	Oct. 27, 1878	.....	Company remained in camp at Tucosquita and Sycamore Creeks, and performed daily patrol duty along the Rio Grande.
	First Lieut. H. H. Crews, Fourth Cavalry.	K, 4th Cavalry, C, 20th Infantry, Seminole Scouts.	3	74	15	2	Nov. 23, 1878	Dec. 31, 1878	.....	To scout along El Paso road to Pecan Springs; thence, by Colonel Shafter's trail, to Myer's Springs, Painted Rock, Independence Creek, Live Oak Creek, Eagle's Nest, Big Spring, and Devil's River crossing, and returned to post. No sign of Indians seen.
	Second Lieut. Alex. Rodgers, Fourth Cavalry.	A, 4th Cavalry	1	30	.....	.....	Nov. 21, 1878	Nov. 25, 1878	110	To search for Indian trails in the vicinity of the heads of the Pinto, Sycamore, and San Felipe Creeks; scouted to the crossing of Devil's River, and returned to post by way of San Felipe. No Indians seen.
	First Lieut. J. L. Bullis, Twenty-fourth Infantry.	Seminole Sco'ts	1	42	.....	.....	Sept. 7, 1878	Oct. 19, 1878	500	From post to mouth of Devil's River; thence to Pecos Springs, and up Pecos River. Found remains of an Indian camp about a month old. Next day found another place where Indians had been camped about six weeks before; also found a horse which had been lost or abandoned by them, and cattle trails, but was unable to follow sign on account of the heavy rain that had obliterated the trails. October 6 left Pecos River and went to Devil's River, to hunt for the murderers of the Dowdy family. Found no further Indian sign.
	First Lieut. J. W. Pullman, Eighth Cavalry.	K, 8th Cavalry	1	52	.....	.....	Nov. 4, 1878	Dec. 31, 1878	.....	Engaged in patrolling the Rio Grande, from the camp at Las Moras to Fort Duncan; also northeast from camp to Cow Creek and Mexican settlement on Pinto. These patrols were made daily to look out for Indians or thieves. None seen.
	Capt. A. B. Wells, Eighth Cavalry.	A, 8th Cavalry.	2	61	.....	.....	Oct. 4, 1878	Jan. 31, 1879	.....	The company remained in camp on Sycamore Creek. Daily or nightly patrols were made along the Rio Grande to Haughbery, and along the Pinto to post of San Felipe.
	First Lieut. J. L. Bullis, Twenty-fourth Infantry.	A, 4th Cavalry, Seminole Scouts, Lipan Scouts.	3	15	42	13	Jan. 31, 1879	Apr. 19, 1879	1,266½	From camp of Seminole scouts on Las Moras Creek, with Seminole and Lipan Scouts, Second Lieut. F. D. Sharp, Twentieth Infantry, and Acting Assistant Surgeon Gilbert; proceeded up Rio Grande to mouth of Sycamore Creek, thence northwest to San Felipe, at which point the command was re-enforced by a detachment of Company A, Fourth Cavalry, under Lieutenant Rodgers, and twelve citizen packers. With this augmented force, proceeded to Devil's River, Seminole Water Holes, and Dead Man's

Pass, and up Devil's River to Pecan Springs. From this point sent out one sergeant and four privates, Seminole scouts, up main road, with mail for citizens living at old Camp Lancaster. With the balance of command continued up Pecos River to Howard's Creek and Richland Creek. February 12 reached Independence Creek, at which place the party sent out with mail rejoined, and reported having found an Indian trail, about ten days old, a few hundred yards distant, and had picked up a worn-out pony, dropped by the Indians. Sent out first sergeant of Seminoles, with a few scouts, who followed this trail west five miles and found a spring, unknown to command, where the Indians had secreted ten or twelve horses; this party returned to camp, it being too dark to follow the trail. Left camp at daylight next morning, with one scout and a Mexican guide, and followed trail 12 miles; returned, and with entire command resumed trail, taking a northeast direction over a rough country with a great scarcity of water; crossed Pecos and continued on main road to Fort Concho, and thence to the plains; proceeded (being still on the trail) to Castle Gap, White Sand Hills, and Horse Head Crossing of Pecos River. February 18 picked up another horse which the Indians had abandoned. February 20 passed deserted Indian camp. At Antelope Wells found Indians had remained four days, and left morning before. Continued to Pecos River and Seven Springs, New Mexico, and at foot of Guadalupe Mountains found a spring at which the Indians had again camped. Stock at this time very much worn out; obliged to send a number of ponies belonging to the Seminoles to Fort Stockton to save them. Farther on found another camp of the Indians, with indications that they had about one hundred animals, and had left but a few days before; they also had with them their women and children. Became satisfied they were camped in the Guadalupe Mountains. February 25, 26, and 27 continued on trail, finding recently-abandoned Indian camps. Men and animals were now suffering terribly for water. February 28 one of the scouts reported horses and, he thought, Indians with them; worked around under cover of the hills, and found about eleven horses, which the Indians had abandoned, also a small spring, which had been filled up with brush and stones. The command worked two hours cleaning it out, when water was obtained in abundance. Named this "Salvation Spring." Remained in camp at this point till March 4, with lookouts posted on the highest mountains. Continued on to Pinasco Creek, about sixty miles from Fort Stanton and thirty from the Mescalero Indian agency. Citizens in this vicinity reported Indians as having passed, five days before, and killed one of their oxen; that they followed them to the agency, where they were compelled by the agent to give up two horses for the ox killed. Con-

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
Fort Clark.	Capt. John Lee, Fourth Cavalry.	D, 4th Cavalry.	1	59	.....	.....	Feb. 24, 1879	Apr. 30, 1879	400	continued to the Indian agency, trailing the Indians to within three miles of the agent's house, thence to Fort Stanton, where command remained in camp from March 10 to 17. Left Fort Stanton and proceeded down Hondo Valley to Cottonwood Springs, Pinasco Creek, and mouth of Seven Rivers. Courier arrived at this point with orders for command to return to Fort Stanton, but men and stock being terribly worn out, did not feel justified in returning. Continued down Pecos River to Black River, and thence to Delaware Creek, Pecos Falls, and Fort Stockton. Remained four days at Fort Stockton, and resumed march to Upper and Lower Escondidos. While in camp, April 10, command overtaken by fire, which leaped the river, and from which equipments were barely saved. Continued to Pecos Springs, and at that place received another communication directing return to Fort Stanton, but owing to condition of animals, justified in continuing to Fort Clark, eighty miles distant. Proceeded via Painted Cave Springs, Seminole Water Holes, and San Felipe, reaching Fort Clark April 19. The stock recovered along the road was badly used up, and divided among the scouts, subject to approval of department commander. Officers and men endured hardships and privations incident to such an expedition remarkably well.
	Second Lieut. J. R. Richards, jr., Fourth Cavalry.	L, 4th Cavalry.	1	13	.....	.....	May 12, 1879	May 30, 1879	250	From camp of company on Sycamore Creek to Camp Lancaster, from which place the adjacent country was scouted and patrolled by detachments. No Indians seen. On scout in search of Indians or raiders. Took a south southwest direction to the mouth of Las Moras Creek, Tucosquita Creek, and crossing of Rio Grande, near Newtown, thence to Hackenberry's Crossing and San Felipe. From San Felipe continued to Devil's River, Winkler's Crossing, Small Painted Rock Cave, and Pecos River. No trails or Indians seen.
	First Lieut. J. W. Pullman, Eighth Cavalry.	K, 8th Cavalry	1	44	4	.....	June 3, 1879	June 23, 1879	427	On scout to Pecan Springs, Devil's River, to endeavor to intercept a party of depredating Indians. Proceeded to Sycamore Creek, Yellow Banks, and Devil's River, above Camp Hudson. Sent out patrols and scoured the country thoroughly. No Indians seen or heard of.

	Capt. A. B. Wells, Eighth Cavalry.	A, 8th Cavalry	1	38	.....	June 3, 1879	June 14, 1879	203	On scout to endeavor to intercept a party of Indians reported as committing depredations on Nueces River; visited the Frio and Sabinal cañons, but found no sign of Indians.
	Capt. S. B. M. Young, Eighth Cavalry.	M, 8th Cavalry	2	58	.....	June 3, 1879	June 13, 1879	200	On scout in pursuit of marauding Indians. Proceeded to Kickapoo Springs; remained there three days, guarding all the water-holes at the head of the West Fork of the Nueces, and patrolling country. Continued to the headwaters of the Llano and ascertained that the Indians had passed eighteen miles south of Fort McKavett on June 4.
	Capt. William Fletcher, Eighth Cavalry.	E, 20th Infantry; M, 4th Cavalry, and Seminole scouts.	4	102	42	July 8, 1879	Sept. 3, 1879	600	For the purpose of constructing a road from San Felipe via Lower Devil's and Pecos Rivers to Pena Blanco. Command proceeded to Devil's River and established a camp near a place known as Mackenzie's Camp, thence to Painted Cave Springs. From this point a party was sent out to examine and determine the most practicable place to effect a crossing, and to cut a road down the bluff. A working camp having been selected, operations were begun July 19, and continued to August 30, when orders were received to suspend further work. Many obstacles had to be overcome during the progress of the work, such as filling up arroyos and cutting through cliffs, &c., for two miles; starting from the table-land it descends by a series of terraces till it reaches the tops of the cliffs which form the cañon of the Pecos, the walls or cliffs being perpendicular and rising in height two hundred to three hundred feet. The road is cut around the side of the mountain, in some places cutting down and in others filling up. Trains can now go from San Felipe as far up the Pecos bottom as the road has been worked. During the period covered by these operations two scouting parties were sent—one under Captain Callahan, Fourth Cavalry, and one under Lieutenant Bullis—for the purpose of obtaining information that might prove of service in the construction of the road.
Fort Concho ...	First Lieut. M. M. Maxon, Tenth Cavalry.	L, 10th Cavalry	2	59	.....	May 10, 1878	Sept. 2, 1878	.....	To camp at Pena Blanco, Tex., and scouted from there, by detachments, to Triple Mountains, Mount Santiago, down San Francisco Creek to Presidio del Norte, and thence to Fort Stockton, at which post the company was assigned to duty. Indian sign, made as late as last spring, found near Pena Blanco and the crossing of the Rio Grande, west of the mouth of San Francisco Creek.
	First Lieut. Wallace Tear, Twenty-fifth Infantry.	F and M, 10th Cavalry; G, 25th Infantry.	1	18	.....	Oct. 8, 1878	Oct. 21, 1878	456	To scout up the North Concho River; followed Colonel Shafter's trail to Five Wells; found a trail five or six days old, but having no guide did not attempt to follow it. Visited Baldwin Springs and Mustang Springs; sent a detachment to Sulphur Springs to search for Indian sign. No Indians seen.
	Capt. W. B. Kennedy, Tenth Cavalry.	F, 10th Cavalry	1	58	.....	Aug. 1, 1878	Sept. 30, 1878	.....	Company stationed at Grierson's Springs, Tex., and performed scouting duty, thoroughly exploring the adjacent country, but found no sign of Indians.
	Capt. A. S. B. Keyes, Tenth Cavalry.	D, 10th Cavalry	2	52	.....	Oct. —, 1878	Nov. —, 1878	713	Scouted from Grierson's Springs, Tex., through surrounding country. No trails or sign of Indians seen.

ABSTRACT C.—*Tabular statement of expeditions and scouts against Indians, &c., made in the Department of Texas, &c.*—Continued.

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
Fort Concho...	Capt. A. S. B. Keyes, Tenth Cavalry.	D, 10th Cavalry	1	10	.....	.....	May 20, 1879	May 23, 1879	100	To Grinnell's ranch, on Dove Creek, to investigate report of Indians having been seen there; ascertained that two dismounted Indians were reported by a Mexican herder. Finding no trail, crossed to South Concho, and visited ranches, thence to Antelope and Dove Creeks. No Indians seen.
	First Lieut. M. M. Maxon, Tenth Cavalry.	F, 10th Cavalry	1	40	.....	.....	June 5, 1879	June 15, 1879	500	By detachments, in pursuit of marauding Indians, along Pecos River to Town's ranch and Pecos Bridge, Paint Rock Spring, Beaver Lake, Pecan Spring, and Independence Creek.
	First Lieut. C. R. Ward, Tenth Cavalry.	D, 10th Cavalry	1	10	.....	.....	June 6, 1879	June 10, 1879	135	On scout in pursuit of Indians. Marched to head of Antelope Creek, to Dove and Spring Creeks, then across country to main Concho, and up river to Camp Charlotte. No sign of Indians seen.
	Capt. A. S. B. Keyes, Tenth Cavalry.	D, 10th Cavalry	1	10	.....	.....	June 6, 1879	June 11, 1879	150	In search of Indians reported as having stolen stock in vicinity of Fort McKavett, followed the North Concho to its head, where a party of rangers were met; thence by a southeast course returned to post by Stirling and Kiowa Creek. No Indians seen.
	Capt. A. S. B. Keyes, Tenth Cavalry.	D, 10th Cavalry	2	20	.....	6	June 12, 1879	June 15, 1879	140	In search of Indians reported stealing stock in vicinity of post. At a point five miles up North Concho, a calf, which had been killed by an arrow, was found by a Mexican. All efforts to find a trail were without avail. Crossed over toward the Colorado; learned that Indians had stolen two horses, leaving behind their ponies, and had gone west six or seven miles, and were joined by others.
First Lieut. C. R. Ward, Tenth Cavalry.	Detachment D, 10th Cavalry.		1	.....	.....	June 29, 1879	July 14, 1879	345	On scout in pursuit of Indians, reported as having stolen stock on North Concho River. Proceeded up Concho River to Hollman's ranch, at which point, learning that Texas rangers had had a fight with Indians on June 29, and were looking for trail, awaited their return; but not hearing from them continued to Mustang Springs and struck trail of rangers and Indians; followed it; found and buried the body of the ranger killed in the fight. Continued to Baldwin's ranch, Sulphur Springs, and Loda Springs, sending a detachment to the latter place, finding no sign. Marched on to Big Springs, and thence to headwaters of North Concho,	

									Learned during this trip that on June 29 a party of Texas rangers struck a band of Indians, near the head of the North Concho, capturing all their horses, but losing two pack-mules; the engagement lasted until dark, without loss of life. The next day the pursuit was renewed and the Indians overtaken and obliged to abandon the mules. Another engagement took place in which a ranger was killed. The Indians were left in possession of the field; several blankets found on the trail were marked U. S. I. D.
	First Lieut. James Pratt, Twenty-fifth Infantry.	K, 25th Infantry.	1	25	.....	Apr. 3, 1879	July 30, 1879	544	To camp at Grierson's Springs and scouted from there, by detachments, through adjacent country, and repaired telegraph line and road from camp to Pecos crossing. No Indian sign discovered, or depredations reported.
	Capt. S. T. Norvell, Tenth Cavalry.	M, 10th Cavalry	2	44	.....	Apr. 4, 1879	Aug. 15, 1879	3, 811	Scouts made from Camp Charlotte through adjacent country in search of Indians or raiders; also to gain information relative to the country. No sign of Indians discovered, and no depredations reported.
	Col. B. H. Grierson, Tenth Cavalry.	F and G, 25th Infantry.	5	65	....	1 Aug. 18, 1879	Sept. 11, 1879	1, 000	Tour of inspection of commanding officer district of the Pecos, to Pena, Colo., to locate a camp at that point and occupy and scout the country and open a wagon-road from Fort Davis toward Fort Clark.
Fort Davis	Second Lieut. R. D. Read, jr., Tenth Cavalry.	K, 10th Cavalry	1	10	....	1 July 7, 1878	July 15, 1878	196	In pursuit of unknown parties (supposed hostile Indians) who had murdered a Mexican, July 4, 1878, near Mr. Keysey's charcoal pit, in the vicinity of Musquez Cañon, about four miles east from Fort Davis. Trail was found to be very indistinct; they were on foot and shod with moccasins—only three persons in the party. Scouted thoroughly in every direction without success; they had taken flight through the Limpia Mountains, north of Fort Davis.
	Capt. L. H. Carpenter, Tenth Cavalry.	H, 10th Cavalry	2	32	.....	May 20, 1878	Aug. 29, 1878	1, 806	To camp at Eagle Springs, and scouted from there to Carissa Mountains. The sign observed seemed to show that the Indians belonged to the Fort Stanton Reservation, as direction of most of the trails either led to or came from the Guadalupe.
	Capt. M. L. Courtney, Twenty-fifth Infantry.	H, 25th Infantry.	1	12	.....	June 28, 1878	Sept. 25, 1878	984	To camp at Seven Springs, and scouted from there to Presidio Creek, Frazier's Creek, Point of Rocks, and Barrilla Mountains. No Indians or Indian sign, other than old camps, were seen, and no depredations committed.
	Second Lieut. C. G. Ayres, Tenth Cavalry.	H, 10th Cavalry	1	10	.....	Oct. 8, 1878	Oct. 15, 1878	183	To look for trail of Indians who depredated on Johnson's Creek, October 6; scouted the country thoroughly along Fort Stockton road, south of Barrilla, and the road from Del Norte to Stockton, thence to Piedras, Gossatiles, and Head's ranches, and Mitre Peak. No trails seen.
	Capt. C. D. Viele, Tenth Cavalry.	C, 10th Cavalry	2	40	.....	Sept. 3, 1878	Sept. 11, 1878	284	From camp at Eagle Springs, in northerly direction to Fresna, Rattlesnake Springs, Double Mountains, La Pietra, Tenaja Pinta, Sulphur Water Holes, and Apache Springs. Found no sign of Indians.
	Capt. C. D. Viele, Tenth Cavalry.	C, 10th Cavalry	3	40	.....	Sept. 17, 1878	Sept. 20, 1878	108	From camp at Eagle Springs, to scout along Rio Grande; took a westerly course, passing Eagle Range to Oja Caliente, thence up the river to Fort Quitman and La Blanco. The country traversed was very rough. Found no sign of Indians except very old trails along the river.

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
Fort Davis	Capt. C. D. Viele, Tenth Cavalry.	C, 10th Cavalry	3	40	.....	.....	Oct. 3, 1878	Oct. 21, 1878	305	To scout down the river in search of Indians or trails; took the east side of Eagle Range to Tinaja Viega—continued down the river, being obliged to cross owing to a range of cliffs which ran to the water's edge; recrossed again twenty-five miles below, and continued to Russell's ranch, Capota Cañon, and Barrel Springs, on the El Paso road. Next crossed the mountains over a rough trail, and returned by way of Viega Pass, Tineja Borego, and Tinaja Viega. No recent sign of Indians in the vicinity was found.
	Second Lieut. R. E. Saford, Tenth Cavalry.	C, 10th Cavalry	1	25	.....	.....	Nov. 13, 1878	Nov. 14, 1878	48	On scout over the Noriz Mountains to prove previous compass bearings.
	Capt. C. D. Viele, Tenth Cavalry.	C, 10th Cavalry	2	35	.....	.....	Nov. 5, 1878	Nov. 11, 1878	117	On scout on the Rio Grande; followed the old trail east of the Eagle Mountains, and then southwest on an old Indian trail, thence west to Rio Grande. Marching down river traversed a very rough country and poor grazing, necessitating the making of slow marches. Returned to Eagle Springs via Tinaja Viega. No Indians seen.
	Capt. C. D. Viele, Tenth Cavalry.	C, 10th Cavalry	3	30	.....	.....	Nov. 17, 1878	Nov. 26, 1878	346	To explore that part of the Rio Grande between Oja Caliente and the place camped at November 6, 1878; took a due westerly course through the Eagle Mountains, and, after marching nine miles, struck an Indian trail going north, and about thirty-six hours old; forty or fifty head of stock on trail; sent a detachment back to camp for additional rations, and followed the trail. Further on found an abandoned Indian camp, continued on trail till dark, and resumed pursuit at daylight. Next morning, at Tankee, Colo., found evidence of a recent camp, and the trail was there joined by another from the south, with some ten head of stock, and led north through the Sierra Diablo, over too rough a country for the command to ride. After traveling thirty-seven miles, found the camp left by the Indians in the morning; there they had evidently been joined by a third party, coming from the southeast, with some fifteen head of stock. Great difficulty was experienced in getting the trail from this point, as the stock had been grazing over a large surface. Continued on until dark, sending out a guide to see if any Indians were camped ahead. During the night the party sent back for

Capt. T. C. Lebo, Tenth Cavalry.	C, 10th Cavalry.	1	58	.....	Sept. 4, 1878	Nov. 30, 1878	550	<p>rations joined the command. No water at this camp. Followed trail again at daylight to La Pietra. After marching fourteen miles found where the Indians had camped the night before, and concluded they were making for Tinaja Pinta. In order to get water, the stock being weak for want of it, obliged to leave the trail and strike for the Sulphur Water Holes, where the animals were watered for the first time in fifty hours. Started for Tinaja Pinta, on reaching which found no water or sign of Indians. Sent Lieutenant Safford with a platoon to the east of the mountains, and took west side with the balance of command to look for trail, which was found about one mile from resting place. The Indians had camped there, and from sign had evidently fled at the approach of command. Followed at a brisk trot for twenty miles to San Antonio Springs, where the Indians had watered, and thence to Comidas, resting at dark, and unsaddling horses for the first time in twenty-four hours. Owing to condition of horses, obliged to abandon further pursuit.</p>
Second Lieut. R. D. Read, jr., Tenth Cavalry.	H and K, 10th Cavalry.	1	11	.....	May 5, 1879	May 9, 1879	150	<p>From Fort Davis, along the stage road through Limpia Cañon to Big Hill; thence to Point of Rocks and, via Vitoria road, to a former camping place at Seven Springs, and thence to Vitoria, a small Mexican settlement at the head of the Tojan Creek, and by way of Saint Martin Springs to Gomez Peak. The progress of the wagons in this vicinity was impeded by the rough heavy roads. Next took a northerly direction, and toward Guadalupe Peaks, through the low hills of Pesino de Cavallo, to Salado; thence, via Leoncita, to Wild Horse Tanks, and head of Delaware Creek, Marr's ranch, and Bull Springs. At the latter place relieved cavalry company stationed there. From that camp scouting parties were sent out from time to time, and the country adjacent thoroughly scouted. No recent trails or sign of Indians were found.</p> <p>On a scout in pursuit of hostile Indians; took a northeast course to Mahle's Cow Camp, where Indians had been seen early in the morning; continued through a deep rough cañon to a stream of water near which were moccasin tracks; followed trail over the mountains to Arroyo Las Vacas, passing a camp evidently occupied by the Indians the night before; farther on found a mare and colt, which they had abandoned; followed trail rapidly as possible to Tinaja Palo Blanco, where the sign was very fresh; moved out of the ravine over a rocky ridge, and found in a clump of trees remains of another Indian camp; concluded they had been there the evening before and saw the detachment on their trail on opposite side of ravine and hurried off. Continued to Heid's ranch, finding now and then dead or abandoned horses along the road. From the moccasin tracks, judged the Indians to be from six to ten in number. Proceeded through Santiago Pass to head of Maravillas Creek, and here the party seemed to separate</p>

ABSTRACT C.—*Tabular statement of expeditions and scouts against Indians, &c., made in the Department of Texas, &c.*—Continued.

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
Fort Davis	Second Lieut. C. G. Ayres, Tenth Cavalry.	Detachment H, 10th Cavalry.	1	.....			April 2, 1879	July 24, 1879	981	and scatter in different directions towards the hills; finding it impossible to keep the trail, abandoned further pursuit and returned to post. The Indians were probably Mescalero Apaches, from the San Carlos Reservation.
	Capt. M. L. Courtney, Twenty-fifth Infantry.	Detachments H, 10th Cavalry, and H, 25th Infantry.	1	.....			July 20, 1879	Aug. 2, 1879	356	To camp at Eagle Springs, and scouted from that point through adjacent country in search of Indians or trails. July 12, discovered a trail east of Bass Cañon, but the roughness of the country rendered it impossible to follow it but a short distance. No other Indian signs discovered. Via Crow's Nest and El Muerto, to camp at Eagle Springs, at which point information was received that Indians with loose stock had been seen at a place about eight miles distant; started at once in pursuit, going first to Fresna Pass, but finding no sign at that point retraced course, and found trail on east side of Carizzo Mountains; followed it to Sulphur Springs, thence across the plains, and at the base of a small hill, in a mesquite copse, discovered Indians, with their herd, about to start. Every precaution taken to approach them without giving notice; the command was dismounted and crept along cautiously, when the guide, who had gone ahead, made our presence known by firing upon them. The Indians at once made for their horses, but a few well-directed shots drove them back before they could mount; leaving their herd, they retreated around the foot of the hill, occasionally stopping to take a shot; the firing was returned, and the fleeing Indians pursued, but the condition of animals after a long journey, with little water, rendered a long pursuit impracticable. Two of the command, Corporal Webb and Private Foster, Company H, Tenth Cavalry, wounded in the engagement; three Indians wounded, two mortally. The property captured consisted of nine horses and ponies, one mule, four blankets, one revolver, cartridge-belts, saddles, bridles, &c. The men engaged are commended for their great coolness and courage.
Fort Duncan...	First Lieut. W. S. Scott, Twenty-fifth Infantry.	H, 25th Infantry; H, 10th Cavalry.	1	14	.....		April 5, 1879	July 15, 1879	360	Scouts made from the camp at Seven Springs through adjacent country in search of Indians or trails. None seen, and country generally in a quiet state.
	Second Lieut. C. J. Crane, Twenty-fourth Infantry.	E, 4th Cavalry.	1	17	.....		Oct. 7, 1878	Oct. 12, 1878	.....	Along Rio Grande, and found Indian crossing about two weeks old.

	First Lieut. C. A. P. Hatfield, Fourth Cavalry.	Detachment E, 4th Cavalry.			Oct. 8, 1878	Oct. 18, 1878	284	Down the Rio Grande, with orders to cut off or follow the trail of four hundred cattle, reported stolen from the Penedencia; proceeded to Carizzo, and scouted down the Nueces Valley. No sign discovered.	
	Second Lieut. J. J. Breerton, Twenty-fourth Infantry.	E, 4th Cavalry.	1	15	Nov. 28, 1878	Dec. 3, 1878	130	Along El Jardin road to El Jardin, to search for a suitable site for a cavalry camp, and then returned to post.	
	First Lieut. C. A. P. Hatfield, Fourth Cavalry.	E, 4th Cavalry.	1	15	Jan. 11, 1879	Jan. 16, 1879	120	Along river road for seventeen miles, and thence to El Jardin via Kennedy's ranch and San Ambrosia, to observe if any thieves or Indians had been in the vicinity.	
	Second Lieut. H. H. Bellas, Fourth Cavalry.	E, 4th Cavalry.	1	14	Jan. 26, 1879	Jan. 31, 1879	130	To El Jardin, by way of Cuernas Creek and Palo Blanco. No sign of Indians seen.	
	First Lieut. C. A. P. Hatfield, Fourth Cavalry.	E, 4th Cavalry.	1	15	Feb. 18, 1879	Feb. 23, 1879	122	To El Jardin via San Ambrosia, and returned to post. No sign of Indians.	
	Second Lieut. H. H. Bellas, Fourth Cavalry.	E, 4th Cavalry.	1	13	Mar. 6, 1879	Mar. 12, 1879	135	Along river road to El Jardin, to ascertain if any Indians, reported as depredating in Mexico, had crossed the river. Ascertained at El Jardin that a party of Mexicans had killed two men and had carried off a boy from a ranch in Mexico, a short distance from Rio Grande. Returned to post by way of Isletas and Pognatchie ranches. No sign of marauders seen on the American side.	
	First Lieut. C. J. Crane, Twenty-fourth Infantry.	E, 4th Cavalry.	1	15	May 18, 1879	June 4, 1879	104	On a scout to assist sheriff of Maverick County in recovering stolen horses and cattle and arresting certain outlaws supposed to reside near Penedencia Creek. Met sheriff outside of post and proceeded toward Penedencia via Rosita, and then took a northeast course across country to Bartol's ranch, and thence to Mauchac Crossing on the Nueces, where three of the stolen horses were recovered; later on another was found, and while at McCurley's Crossing on the Comanche, a prisoner, one Dick Woods, surrendered himself. Returned to post, turning over to the sheriff the prisoner and recovered animals.	
	First Lieut. C. A. P. Hatfield, Fourth Cavalry.	E, 4th Cavalry.	1	15	Sept. 4, 1879	Sept. 8, 1879	132	To telegraph station on Laredo road to investigate reported presence of Indians from Mexico. Proceeded to Kirkpatrick's ranch and El Jardin; ascertained that a party of Indians, from near Santa Rosa, were depredating in Mexico, and had killed two Mexicans, and, being pursued, were fleeing towards Santa Rosa Mountains. No sign of Indians seen on American side of river.	
Fort Griffin	Second Lieut. Donald Winston, Tenth Infantry	E, 10th Infantry.	1	15	2	Feb. 14, 1879	Feb. 27, 1879	252	On scout in search of Indians or other raiders. Traversed the country as far as vicinity of Pease River. No sign discovered.
Fort McIntosh.	Sergt. Chas. Stewart, Company F, Eighth Cavalry.	F, 8th Cavalry	12	Aug. 13, 1878	Aug. 19, 1878	158	
	Sergt. A. K. Paugh, Company F, Eighth Cavalry.	F, 8th Cavalry	10	Sept. 3, 1878	Sept. 10, 1878	130	
	Sergt. C. Grubb, Company F, Eighth Cavalry.	F, 8th Cavalry	10	Sept. 12, 1878	Sept. 19, 1878	130	Along the river road to El Jardin, for the purpose of ascertaining if any raiding parties had recently crossed the Rio Grande. No sign discovered.
	Sergt. Thos. Bartley, Company F, Eighth Cavalry.	F, 8th Cavalry	12	Aug. 22, 1878	Aug. 30, 1878	129	

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			Officers.	Enlisted men.	Indians.	Citizens.				
Fort McIntosh.	Capt. A. P. Caraher, Eighth Cavalry.	F, 8th Cavalry.	1	54	Sept. 28, 1878	Oct. 9, 1878	138	For the purpose of patrolling the road between post and Fort Duncan. Ascertained that Indians had been in the vicinity four or five days previously; sent a detachment toward the Rio Grande, but could learn nothing further. No Indians or trails seen.
	Capt. A. P. Caraher, Eighth Cavalry.	F, 8th Cavalry.	1	30	Oct. 12, 1878	Oct. 18, 1878	101	On San Antonio road in direction of Fort Ewell, in pursuit of Indians reported in the vicinity. Found no trails or corroboration of the reported presence of Indians.
	Sergt. Chas. Stewart, Company F, Eighth Cavalry.	F, 8th Cavalry.	...	7	Dec. 6, 1878	Dec. 13, 1878	140	} Along the river road to El Jardin, to ascertain if any raiding parties had recently crossed the Rio Grande. No sign discovered.
	Sergt. A. K. Paugh, Company F, Eighth Cavalry.	F, 8th Cavalry.	....	6	.....	.....	Dec. 17, 1878	Dec. 24, 1878	130
	Sergt. Geo. Haerly, Company F, Eighth Cavalry.	F, 8th Cavalry.	....	9	.....	.....	Nov. 27, 1878	Dec. 4, 1878	130
	Sergt. Geo. Haerly, Company F, Eighth Cavalry.	F, 8th Cavalry.	....	6	.....	.....	Jan. 4, 1879	Jan. 9, 1879	130
	Sergt. Chas. Stewart, Company F, Eighth Cavalry.	F, 8th Cavalry.	....	6	.....	.....	Jan. 15, 1879	Jan. 22, 1879	140
	Sergt. A. Grelsinger, Company F, Eighth Cavalry.	F, 8th Cavalry.	....	6	.....	.....	Jan. 28, 1879	Feb. 4, 1879	130
	Second Lieut. B. Eldridge, Tenth Infantry.	F, 8th Cavalry.	1	20	1	Jan. 31, 1879	Feb. 6, 1879	127	For the purpose of watching the crossing places on the river below Fort McIntosh, with a view to intercepting a party of Mexican marauders reported at Las Animas ranch; took the Ringgold road to San Ignacio and Carrizo, thence on telegraph road to Salmoneno. Did not see or hear of marauders.
Second Lieut. B. Eldridge, Tenth Infantry.	F, 8th Cavalry.	1	20	....	1	Mar. 7, 1879	Mar. 13, 1879	150	On telegraph road in direction of Fort Duncan, to effect the capture of a party of Indians, reported as committing depredations along the Mexican side of the Rio Grande, should they attempt to cross into Texas. Ascertained that Indians had attacked a ranch on Mexican side. Proceeded to Souz's ranch and the Live Oak, and as far as El Jardin. No Indians seen.
Sergt. Charles Stewart, Company F, Eighth Cav.	F, 8th Cavalry.	....	4	.....	.....	Mar. 10, 1879	Mar. 15, 1879	125	As escort to collector of customs at Laredo, along river road to San Bartol.
Capt. A. P. Caraher, Eighth Cavalry.	Detachment F, 8th Cavalry.	....	.....	.....	.....	Mar. 10, 1879	Mar. 17, 1879	253	On scout in search of Indians or raiders reported in the vicinity; took San Antonio road in direction of Callaghan's ranch and Fort Ewell, and sent out small parties in direction of Pietra and Fort Ewell, and across Nueces to rangers' camp. No trails or Indians seen.

Corpl. Christian Cloth, Company F, Eighth Cav- alry.	F, 8th Cavalry.	6	Apr. 4, 1879	1, 1879	579	Proceeded to establish a scouting camp at Souz's ranch, and scouted therefrom, by detachments, through neighboring country. Escorted collector of customs to Rio Grande and captured a party of smugglers. At El Jardin, learned that a party of armed men from Mexico had crossed over and captured two men, supposed to be horse thieves. At different ranches it was reported that stock had been stolen. No sign of Indians seen.
Sergt. George Haerly, Com- pany F, Eighth Cavalry.	Detachment F, 8th Cavalry.		Apr. 28, 1879	May 5, 1879	188	To the camp at Souz's ranch. Detachments visited adjacent ranches and sought information with regard to the presence of marauders. Also furnished escorts to the collector of customs.
Sergt. Chas. Stewart, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	5	May 8, 1879	May 10, 1879	70	Escorted inspector of customs along telegraph road toward Fort Duncan.
Corpl. Christian Cloth, Company F, Eighth Cav.	F, 8th Cavalry.	7	June 20, 1879	June 30, 1879	125	Escorted inspector of customs on his tour of inspection along Rio Grande towards Fort Ringgold.
Sergt. A. K. Paugh, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	7	May 14, 1879	May 20, 1879	130	} Along river road to El Jardin in search of Indians or raiders.
Sergt. Chas. Stewart, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	6	May 27, 1879	June 4, 1879	168	
Sergt. A. K. Paugh, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	6	June 17, 1879	June 23, 1879	130	
Sergt. Chas. Stewart, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	6	July 17, 1879	July 23, 1879	126	
Sergt. A. K. Paugh, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	14	July 5, 1879	July 15, 1879	204	Accompanied the inspector of customs, as escort, on an expedition in which 1,500 head of cattle were seized.
Corpl. Christian Cloth, Company F, Eighth Cav.	F, 8th Cavalry.	3	Aug. 14, 1879	Aug. 21, 1879	153	Via telegraph road to Live Oak, for the purpose of repairing telegraph line, thence to El Jardin.
Corpl. Louis Groppe, Com- pany F, Eighth Cavalry.	F, 8th Cavalry.	5	Sept. 2, 1879	Sept. 9, 1879	160	Along Fort Duncan road to El Jardin in search of Indians or raiders. None seen.
Fort McKavett First Lieut. G. Barrett, Tenth Infantry.	Detachment 10th Infantry (mounted.)	2 10	Oct. 7, 1878	Oct. 10, 1878	84	Southward, to intercept, if possible, a party of Indians who had been depredating on Johnson's Fork of the Guadalupe River. No Indians or sign of any.
First Lieut. G. Barrett, y.	Detachment 10th Infantry (mounted.)	1 6	Nov. 22, 1878	Nov. 25, 1878	121	To recover, if possible, two horses and two mules, stolen from the post corral; found the trail in a bottom outside of the post, and followed the Bear Creek road to near Junction City, thence to Head of Gentry's Creek, Head of Red Creek, and Bear Creek; recovered the stolen stock and returned to post.
Second Lieut. Theo. Mo- sher, jr., Twenty-second Infantry.	Detachment 22d Infantry (mounted.)	1 15	June 5, 1879	June 8, 1879	94	On scout in pursuit of marauding Indians. Found trail crossing road about two miles north of Pecos River, continued to Pecan Springs, ascertained that a party of rangers were in pursuit ahead, so struck out for the headwaters, via Llano and old Fort Terrett. Found no sign of the trail at the headwaters; beyond struck a trail going south, which was soon lost in the dry grass; continued to Ten Mile Water Hole and Hammond's ranch, and returned to Fort McKavett. No Indians seen.
Second Lieut. Theo. Mo- sher, jr., Twenty-second Infantry.	Detachment 22d Infantry (mounted.)	1 4	June 16, 1879	June 17, 1879	24	In pursuit of a party of Indians reported as stealing horses within two miles of post. Ascertained that a party of rangers were ahead on trail, with several hours' start; so returned to post. The rangers, subsequently, overtook the Indians and recaptured nineteen horses.

ABSTRACT C.—*Tabular statement of expeditions and scouts against Indians, &c., made in the Department of Texas, &c.*—Continued.

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Strength of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
Fort Ringgold.	Second Lieut. Q. O'M. Gillmore, Eighth Cavalry.	G and H, 8th Cavalry.	1	52	.....	.....	Oct. 9, 1878	Oct. 19, 1878	260	For the purpose of intercepting a party of Indians, reported to have committed depredations in the vicinity of Callaghan's ranch. Proceeded as far as Laredo, and returned to post. No Indians seen or trails discovered.
	Capt. E. G. Fechet, Eighth Cavalry.	G, 8th Cavalry.	2	45	.....	.....	Oct. 2, 1878	Nov. 2, 1878	397	Throughout adjacent country to search for Indians and other marauders. Country generally reported free from raiders.
		Detachments G and H, 8th Cavalry.	.....	.....	.....	.....	Oct. 1, 1878	Dec. 28, 1878	1143	Detachments of Companies G and H, Eighth Cavalry, scouted from the camp at Edinburg, exploring the surrounding country in search of marauders. No Indians seen.
	First Lieut. R. A. Williams, Eighth Cavalry.	H, 8th Cavalry	1	32	....	1	Jan. 31, 1879	Feb. 6, 1879	197	On scout in pursuit of a party of marauders, reported in the vicinity of Las Animas ranch and supposed to be Mexicans. Proceeded to Salmoneno and Las Animas, and ascertained that a party of twelve Mexicans, armed with Winchester rifles, had watered their horses at the ranch, some six days before and gone in the direction of Rindado; no horses or cattle were known to have been taken. Continued to Rindado, where it was learned that five of the party had passed. Finding no further trace of the party, returned to post.
	First Lieut. Edmund Luff, Eighth Cavalry.	G, 8th Cavalry	1	15	.....	.....	Mar. 11, 1879	Mar. 15, 1879	140	On a scout to obtain information in regard to the crossing of the Rio Grande, or commission of depredations, by Mexicans or Indians. Proceeded to Roma and Pienens ranches, and, taking a northeast course, followed Corpus Christi road to Carrizo. Ascertained that three Indians or Mexicans had crossed the Rio Grande near San Ygnacio, and, being fired upon, had disappeared in a ravine and had not since been seen. Also learned that a party of citizens from Carrizo, and detachment of cavalry from Fort McIntosh, had gone in pursuit.
Post of San Antonio, Tex.	First Lieut. R. A. Williams, Eighth Cavalry.	H, 8th Cavalry	1	63	.....	.....	Mar. 7, 1879	May 7, 1879	890	Company remained in camp at Edinburg, Tex., from which point patrols were made through surrounding country. No depredations reported.
	Capt. E. G. Fechet, Eighth Cavalry.	G, 8th Cavalry	1	67	.....	.....	May 8, 1879	July 11, 1879	1075	Company in camp at Edinburg, Tex., from which point frequent scouting and patrolling parties were sent out, and escorts furnished.
	First Lieut. E. S. Curtis, Second Artillery.	Battery G, 2d Artillery.	2	24	.....	.....	Mar. 24, 1879	Apr. 12, 1879	310	On scout in search of marauders. Took Castroville road and proceeded via Leon, Medina, and St. Lucas ranch, thence by old Presidio road to the Frio, Hondo, and Nueces. A detour of Espanosa Lake was made by a detachment under

San Diego	Capt. A. B. Kauffman, Eighth Cavalry.	E, 8th Cavalry.	1	15	....	1	Sept. 12, 1878	Sept. 19, 1878	100	Lieutenant Edgerton. Followed the Nueces to Walker's Ford, thence to Carrizo, Rock Crossing, Indian Bend, McMahon's ranch, Gocherios's ranch, and Harris's Creek; took left bank of Las Palces to McCoy's ranch, thence to Fort Ewell. Returned to San Antonio by way of Salado, Frio, Laganas, and Atascosa. No sign of marauders seen; some horse-stealing reported along the Nueces.
	Capt. A. B. Kauffman, Eighth Cavalry.	E, 8th Cavalry.	1	32	....	2	Oct. 10, 1878	Oct. 13, 1878	125	To Steele's, Fly's, and Remides ranches, as far as Charco Escondido and return. No Indians seen.
	Second Lieut. S. W. Fountain, Eighth Cavalry.	E, 8th Cavalry.	1	12	....	....	Aug. 13, 1878	Aug. 19, 1878	90	In pursuit of Indians reported moving toward the Nueces River; none discovered.
	Second Lieut. S. W. Fountain, Eighth Cavalry.	E, 8th Cavalry.	1	15	....	....	Dec. 10, 1878	Dec. 18, 1878	104	To Armogasa ranch, Schafer's ranch, and Reynold's ranch. No Indians seen.
	First Lieut. S. W. Fountain, Eighth Cavalry.	E, 8th Cavalry.	1	15	....	....	Jan. 27, 1879	Feb. 4, 1879	133	In direction of Charco Escondido, thence southwest to Borgas and Baronia, and southeast to Concepcion and Sonchas ranch. No Indians seen.
	Second Lieut. G. E. Pond, Eighth Cavalry.	E, 8th Cavalry.	1	20	....	1	Jan. 29, 1879	Feb. 1, 1879	59	To explore wagon-road to Las Myers, on Brownsville and Corpus Christi mail-route. Marched to Palito Blanco; found good road and water; continued to Olmita ranch, passing Trimejos. The result of expedition shows that a practicable road cannot be found via Sorna Blanco to Brownsville.
	Capt. A. B. Kauffman, Eighth Cavalry.	E, 8th Cavalry.	1	20	....	....	Mar. 15, 1879	Mar. 20, 1879	103	To Piedras Pintas, to obtain information regarding rumored presence of marauders. Ascertained that Mexican women at Piedras Pintas had reported robberies at Las Animas ranch. Proceeded to Hubbard's ranch, on the Laredo road, and when starting for Borgas ranch learned from parties coming in that everything was quiet. From information received believe the rumors of depredations to have been groundless.
Second Lieut. G. E. Pond, Eighth Cavalry.	E, 8th Cavalry.	1	20	....	....	Apr. 16, 1879	Apr. 20, 1879	100	On Laredo road to Las Animas ranch, Las Encinal and Leal's ranches, and leaving the road, south to Los Angeles ranch and Musquite Arroyo, thence northeast to Baroena ranch, and along Concepcion road to Wasatche Well and Huacelote ranch, and returned to post by way of Piedras Pintas. No Indians seen.	
Capt. A. B. Kauffman, Eighth Cavalry.	E, 8th Cavalry.	1	18	....	....	June 11, 1879	June 24, 1879	266	On scout in direction of Gray's ranch; took road to Gueyden Bros. ranch, and thence north to Nueces River, striking it at Hall's ranch; proceeded down the river to Calestra Trovas and San Pedro ranches. No trails or Indians seen.	
San Felipe	Second Lieut. G. H. Evans, Tenth Cavalry.	E, 10th Cavalry	1	17	....	....	Oct. 8, 1878	Oct. 20, 1878	212	Traversed the route known as the "Mesquite Route" to Fort Ringgold, and returned by Belaste and Concepcion route; the object being to ascertain the best route from San Diego to Fort Ringgold.
										To scout the country as far as Beaver Lake in search of trail of Indians who killed three girls and one boy by the name of Dowdy, at the head of Johnson's Fork of the Guadalupe, and who were stealing cattle and horses, and escaping toward the Rio Grande; proceeded to Camp Hudson and Yellow Banks, and then to Beaver Lake; scouted

Post or station from which party was sent out.	Names of officers commanding forces sent out.	Troops which composed the command.	Length of the command.				Date of departure.	Date of return.	Distance traveled, miles.	Remarks and results.
			Officers.	Enlisted men.	Indians.	Citizens.				
San Felipe.....	Second Lieut. R. H. R. Loughborough, Twenty-fifth Infantry.	E, 10th Cavalry	1	14	.....	.....	Oct. 8, 1878	Oct. 18, 1878	180	country in Beaver Lake Valley and vicinity of Pecan Springs. Found no trail or sign of Indians. To the mouth of the Devil's River, and patrolled the Rio Grande daily from that point to a spring twenty-five miles above. Found no sign of Indians.
	First Sergt. James Logan, Company E, Tenth Cavalry.	E, 10th Cavalry	.....	8	.....	.....	June 6, 1879	June 14, 1879	150	
	Sergt. Levi Bradley, Company E, Tenth Cavalry.	E, 10th Cavalry	.....	8	.....	.....	June 6, 1879	June 13, 1879	100	Scouting parties, organized to intercept the murderers of the Colson family; patrolled the Rio Grande, and between Camp Hudson and the Rio Grande.
	Sergt. William Cross, Company E, Tenth Cavalry.	E, 10th Cavalry	.....	8	.....	.....	June 13, 1879	June 20, 1879	150	
	Sergt. Chris. Miller, Company E, Tenth Cavalry.	E, 10th Cavalry	.....	8	.....	.....	June 21, 1879	June 27, 1879	100	
First Lieut. L. O. Parker, Fourth Cavalry.	D, 4th Cavalry.	1	25	.....	.....	July 28, 1879	Aug. 9, 1879	125	To scout the country between Camp Hudson, Pecan Springs, and Beaver Lake, in search of Indians or raiders; took regular road to first crossing of Devil's River, thence to Yellow Banks, old Camp Hudson, and Pecan Springs, where a camp was established, from which point the road from Beaver Lake to Pecan Springs was patrolled and detachments sent out in various directions. Country very dry, poor grazing and great scarcity of water. No sign of Indians.	
Fort Stockton..	Second Lieut. Calvin Estery, Tenth Cavalry.	Detachment L, 10th Cavalry.	.....	.....	.....	.....	Oct. 8, 1878	Oct. 15, 1878	165	To Horsehead Crossing, Castle Mountains, Pecos Mountains, and scouted the country thoroughly. No Indians seen.
	Second Lieut. E. F. Glenn, Twenty-fifth Infantry.	L, 10th Cavalry	1	48	.....	.....	July 23, 1878	Aug. 3, 1878	241	From camp of company at Pena Blanco, in direction of Mount Santiago, till road was reached, continued to Agate Pass, San Estivan, Davis's ranch, Rancho de l'Alamo, and Del Norte. At Del Norte ascertained the whereabouts of an Indian encampment some thirty miles across the river in Mexico, and said to contain fifty warriors who had recently committed raids into the United States. From Del Norte proceeded to Pulva and along Paunecita River to Mount Santiago, and returned to camp. No Indians seen.
	Second Lieut. Calvin Estery, Tenth Cavalry.	L, 10th Cavalry	1	10	.....	.....	May 21, 1878	June 15, 1878	155	To look for a spring said to be thirty miles to the northeast, also for a practicable wagon road. Took direction of Pecos Mountains and along Pecos River, marked out a road from Camp Pena Blanco to Deer Lake; explored Marabillas Valley and scouted through surrounding country.

Capt. G. A. Armes and Second Lieut. Calvin Esterly, Tenth Cavalry.	L, 10th Cavalry	2	50	1	Apr. 7, 1879	July 31, 1879	4,703	Scouts—including marches, two or three times, by company and detachments, over portions of the routes—made from the camp at Frazier's ranch, through adjacent country, in search of Indians or raiders, and to obtain information in regard to the country. No sign of Indians discovered and no depredations reported.
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Sub-posts and scouting camps existing September 30, 1879.

Sub-post or camp.	Garrisoned from—	District.	Remarks.
Santa Maria, Tex	Fort Brown	Rio Grande	The camps in the district of the Pecos have been established by the district commander, under the instructions of the commanding general, of April 30, 1878, with a view of making the mail-route safe, and the settlements in its vicinity, by forcing the Indians from that region and keeping them out of it.
Edinburg, Tex	Fort Ringgold	Rio Grande	
Camp at Pecan Springs, Texas	Fort Clark	Nueces	
Camp on the Nueces, Texas	Fort Clark	Nueces	
Camp on the Pecos, Texas	Fort Clark	Nueces	
Camp at Grierson Springs, Texas	Fort Concho	Pecos	
Camp Charlotte, Texas	Fort Concho	Pecos	
Camp at Eagle Springs, Texas	Fort Davis	Pecos	
Camp at Seven Springs, Texas	Fort Davis	Pecos	
Camp at Pine or Bull Springs, Texas	Fort Davis	Pecos	
Camp at Rainbow Cliffs, Texas	Fort Stockton	Pecos	
Camp at Frazier's Ranch, Texas	Fort Stockton	Pecos	
Camp at Escondidos, Texas	Fort Stockton	Pecos	

RECAPITULATION BY POSTS.

Post.	Total distance traveled.
	<i>Miles.</i>
Fort Brown, Texas	3, 095
Fort Clark, Texas	4, 623
Fort Concho, Texas	7, 894
Fort Davis, Texas	6, 724
Fort Duncan, Texas	1, 158
Fort Griffin, Texas	252
Fort McIntosh, Texas	4, 264
Fort McKavett, Texas	323
Fort Ringgold, Texas	4, 102
San Antonio, Texas	310
San Diego, Texas	1, 074
San Felipe, Texas	1, 017
Fort Stockton, Texas	5, 264
Total of all posts	40, 100

The foregoing is a correct statement of the most important expeditions and scouts organized in this department during the year, compiled from reports received to date. It does not embrace a large number of escorts, guards to mail stations, &c.

HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., October 1, 1879.

Official copy :

THOMAS M. VINCENT,
Assistant Adjutant-General.

ABSTRACT D.—List of persons killed, wounded, or captured by Indians, &c., in the Department of Texas since September 30, 1878, officially reported by post commanders.

Post.	Killed.	Wounded.	Captured.	Remarks.
Fort Clark	4			Dowdy family, one boy and three girls; by Indians, October 5, 1878, at a ranch on Johnson's Fork of the Guadalupe.
				Wife and two daughters of Nick Colson; by Indians, at Colson's ranch, near Camp Wood, Texas, June 1, 1879.
Fort Concho	1			— Auglin, a Texas ranger; in an engagement with the Indians near headwaters of North Concho, June 30, 1879.
Fort Davis	2			John Clarkson, an Englishman; for his money, near Van Horn's Wells, Texas, May 18, 1879, and a Mexican woman (name unknown), four miles northeast of post, July 14, 1879.
Fort Duncan			2	Thomas Gonzales and Manuel Minchaco, the former an American citizen; by a party of armed Mexicans, who crossed the Rio Grande from the San Lorenzo ranch, near El Jardin, in April, 1879.
Fort McIntosh	1			A Mexican herder; by unknown parties, fifty miles from Fort Ewell, March 15, 1879.
				Mexican teamster, name unknown; on the road between Fort Ewell and Corpus Christi, May 1, 1879.
				— McKay, overseer on Crary & Case's sheep ranch, five miles from Fort Ewell; shot through the head while sleeping, in June, 1879, by a Mexican, who fled to Mexico.
Fort Ringgold	1			Teodara Morales; by a Mexican, who crossed the Rio Grande at Roma, Starr County, and fled again to Mexico, June 4, 1879.
				Man and woman; by unknown parties, supposed to be Mexicans, while traveling on road between post and Laredo, in February or March, 1879.
Total	16		2	

HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., October 1, 1879.

Official copy :

THOMAS M. VINCENT,
Assistant Adjutant-General.

DOCUMENT F.

FORT CLARK, TEXAS, *May 9, 1879.*

SIR: I have the honor to render the following report of a scout, made in compliance with Special Orders, No. 7, paragraph III, dated Headquarters District of the Nueces, Fort Clark, Texas, January 31, 1879:

FIRST DAY, *January 31, 1879.*

Left camp of the Seminole scouts, on Las Moras Creek, near the Rio Grande, January 31, 1879, about 9 a. m., with 39 Seminoles and 3 Lipan Indian scouts; 1 Mexican packer, José Tafoya; officers: Second Lieut. F. D. Sharp, Twentieth Infantry, and Acting Assistant Surgeon P. C. Gilbert, U. S. Army. Total, 45. Marched up the Rio Grande about 20 miles, course about northwest, and went into camp near the mouth of Sycamore Creek about 4 p. m.

* * * * *

TWELFTH DAY, *February 11.*

Left camp at 9.40 a. m., marched about northwest for 12 miles, and went into camp on Independence Creek, near the head, about 1 p. m. Grass, wood, and water abundant and good.

Sergt. John Ward and 4 privates joined this day about 12 m., reported having found an Indian trail about ten days old, distant but a few hundred yards. Ward had also picked up a broken-down pony dropped by them. First Sergt. David Bowlegs, with a few scouts, followed this trail west for about 5 miles, and found where the Indians had secreted about 10 or 12 horses at a small spring that was unknown to us; party returned to camp after dark; did not have daylight enough to follow the trail far.

* * * * *

THIRTY-FOURTH DAY, *March 5.*

Left camp at 6.15 a. m., continued on trail, course about west, for 20 miles; camped on Pinasco Creek, about 60 miles from Fort Stanton and 30 miles from the Mescalero Indian Agency. Several ranches are at this point; citizens reported that the Indians had passed five days before, and had killed one of their work-oxen as they passed; that they (five citizens) had followed them into the agency, and that the agent caused the Indians to give to the owner of the ox two of the horses brought in by them in payment; and when questioned by the agent (Mr. Godfroy) why they did it, they (the Indians) said that they had been on a long journey (of which we were well aware) and were hungry. Purchased forage for animals; good water, grass, and wood.

THIRTY-FIFTH DAY, *March 6.*

Remained in camp; purchased forage for animals.

THIRTY-SIXTH DAY, *March 7.*

Left camp at 7.30 a. m., continued on trail, course northwest, for 16 miles; made camp at 2 p. m. at Snow Spring. A citizen from the last camp brought a day's forage into camp for us.

THIRTY-SEVENTH DAY, *March 8.*

Left camp at 7 a. m., continued on trail, course northwest, for 15 miles to the Mescalero Indian Agency. Trailed the Indians within 3 miles of the agent's (Major Godfroy's) house, then reported the facts to him, and requested him to turn the Indians over to me for the purpose of trial in Texas. Went into camp at Blayer's Mills, about 1 mile from the agent's house. Purchased forage for the animals.

THIRTY-EIGHTH DAY, *March 9.*

Left camp at 9.30 a. m. for Fort Stanton. Passed agent's house. He promised to try and get the Indians and turn them over to me, and said that he would come into Stanton during the week and see me about it. Marched northwest 18 miles on main road to Stanton, and went into camp at 4 p. m. at Dowlin's Mills. Purchased forage for animals. Good grass, wood, and water.

THIRTY-NINTH DAY, *March 10.*

Left camp at 8 a. m.; continued on main road 18 miles northwest to Fort Stanton. Met General Edward Hatch, Ninth Cavalry, commanding District of New Mexico, *en route* to Santa Fé, by way of Indian agency; he stated that he would see the agent about turning the Indians over to me. (See letter prefixed and marked A.) Went into camp near Fort Stanton. Plenty of forage for animals.

FORTY-FOURTH DAY, *March 15.*

A new Indian agent passed *en route* to relieve Mr. Godfroy; Captain Carroll, commanding post, and myself rode about ten miles and overtook him. I stated to him all that I told his predecessor about Indians depredating in Texas; he stated that he would write me the following day.

FORTY-SIXTH DAY, *March 17.*

Received letter in the morning from new Indian agent, hereto prefixed and marked B.

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

JOHN L. BULLIS,

First Lieut. Twenty-fourth Infantry, Commanding Scouting Expedition.

Lieut. JOSEPH H. DORST,

Act. Asst. Adjt Gen. District of the Nueces, Fort Clark, Tex.

[One inclosure, marked B.]

UNITED STATES INDIAN SERVICE,
MESCALERO AGENCY,
South Fork, New Mexico., March 16, 1879.

Lieutenant BULLIS:

SIR: Major Godfroy assures me that there is no probability of the Indians you mentioned to me coming in, and, to use his own language, "you might as well look for a needle in a haystack" as to try to get them.

Respectfully,

S. A. RUSSELL.

[Telegram.]

FORT STOCKTON, TEXAS, *August 28, 1879.*

ASSISTANT ADJUTANT GENERAL,
Department of Texas, San Antonio, Tex.:

The following telegram just received:

"FORT STANTON, N. MEX., *via* MESILLA,
August 28, 1879.

"I arrived here the 23d instant, having followed the Indians into the reservation. Recovered eighteen more horses, twenty-nine in all. Agent would not deliver Indians.

"Will leave here the 29th instant.

"MCMARTIN, *Lieutenant.*
"VAN VALZAH,
"Captain, *Commanding.*"

Foregoing copies are official.

THOMAS M. VINCENT,
Assistant Adjutant General.

10.—REPORT OF MAJ. GEN. W. S. HANCOCK.

HEADQUARTERS MILITARY DIVISION OF THE ATLANTIC,
GOVERNOR'S ISLAND, NEW YORK HARBOR,
October 22, 1879.

SIR: In obedience to the instructions contained in your letter of the 6th ultimo, I have the honor to submit the following report of operations within the Military Division of the Atlantic during the past year.

The geographical limits of the division remain the same as last year, and, as then, it is divided into two military departments—east and south—the former being under my immediate command, and the latter under command of Brig. Gen. C. C. Augur, with headquarters at Newport Barracks, Ky.

The aggregate of troops serving in the division on the 30th of September last was, by the returns of that date, as follows:

	Commissioned officers.	Enlisted men.
Headquarters Division of the Atlantic.....	9	11
Department of the East	232	1, 893
Department of the South	114	784
Total	355	2, 688

I inclose a tabular statement showing the distribution of these troops at this date.

In the Department of the East, the post of Fort Foote, Md., was discontinued as a garrisoned post November 10, 1878, and its garrison (Battery I, Second Artillery) transferred to Fort Ontario, N. Y.; Battery F, Third Artillery, the garrison of the latter post having been sent to Fort Schuyler, New York Harbor. In the spring of 1879, the Twenty-second Infantry, garrisoning the posts of Fort Porter, N. Y., and Forts Wayne, Gratiot, Brady, and Mackinac, Mich., was transferred to the Department of Texas, and was replaced in this department by the Tenth United States Infantry. In assigning the Tenth, however, to its stations on the Northern lakes, it was decided not to regarrison the post of Fort Gratiot, but to send an additional company to Fort Wayne, at which post there will be ample quarters, when the new buildings authorized to be constructed there during the present fiscal year have been completed. This transfer of regiments was effected pursuant to General Orders, No. 38, Headquarters of the Army, of March 31, 1879.

Under instructions from the General of the Army, dated July 26, 1879, and Special Orders, No. 34, from these headquarters, of July 29, 1879, Fort Wood and the public buildings on Bedloe's Island, New York Harbor (except one building retained for the use of the ordnance sergeant) were transferred to the Treasury Department for use by it as a marine hospital for the port of New York, subject, however, to recall at any time when the military necessities may require, and subject, also, to the operation of the joint resolution of Congress, approved March 3, 1879, designating Bedloe's Island as a site for the colossal statue of Liberty. So soon as this transfer was effected, the small artillery detachment at the post was withdrawn, and the only army official now there is an ordnance sergeant.

Under instructions from the General of the Army, of August 22 and 30, the post of Carlisle Barracks, Pa., has recently been transferred to the custody and control of the Interior Department, to be used as a school for the education of Indian children, reserving, however, the right of the War Department to resume possession of the post whenever needed for military purposes, or when required by Congressional action. The War Department having, in addition to the public buildings, directed certain property at Carlisle Barracks pertaining to its staff departments to be transferred to the Interior Department at a proper valuation, a board of officers is now in session to appraise the value of such property.

In the Department of the South, the Eighteenth Infantry, nine companies stationed at Atlanta, Ga., and one at Chattanooga, Tenn., was transferred to the Department of Dakota in the month of April, 1879, but was not replaced in this command by another regiment. Under instructions, however, from the General of the Army, the posts of Oglethorpe Barracks, Savannah, Ga., and Charleston, S. C., were discontinued as garrisoned posts, and their garrisons (headquarters, Light Battery F and Batteries E and I, Fifth Artillery, at Charleston, and Battery D, Fifth Artillery, at Savannah) were transferred to McPherson Barracks, Atlanta, formerly garrisoned by the Eighteenth Infantry, where they now remain. The military post of Chattanooga has not been regarrisoned, but is now in charge of the superintendent of the national cemetery at that place.

On the 1st of May, Company F, Thirteenth Infantry, was transferred from Baton Rouge Barracks, La., to Newport Barracks, Ky., and on the 6th of June the post of Baton Rouge was discontinued, and the two companies of the Thirteenth Infantry then stationed there were transferred, Company K to Little Rock Barracks, Ark., and Company B to Mount Vernon Barracks, Ala. Under instructions from the Secretary of War, a company of infantry has been stationed for some time at Hot Springs, Ark., pursuant to a request made by the superintendent of the reservation there and the United States commissioners, who had cause to apprehend interference with the performance of their duties; the report of the department commander, herewith, gives full particulars of this matter.

In view of the probable reappearance of yellow-fever epidemic in the South, timely steps were taken this year to so locate the troops as to prevent, as far as practicable, danger to them from that scourge. On the 16th of June, the headquarters, and Companies A, D, H and I, Thirteenth Infantry, were removed from Jackson Barracks, La., into a summer camp at Atlanta, Ga., and Batteries B, L, and M, Fifth Artillery, were moved from Fort Barrancas, Fla., to McPherson Barracks, Atlanta. These companies of artillery and infantry are still at the points mentioned, but it will doubtless soon be safe to return them to their proper stations. The garrison at Key West was ordered to move at once to Fort Jefferson, Dry Tortugas, in case yellow fever should make its appearance; but I am pleased to say there has been as yet no occasion to disturb the garrison on the account mentioned. There have been no signs of yellow fever or any epidemic so far this year at any military post in the Department of the South.

I invite attention to Brigadier-General Augur's report and its inclosures, herewith, which specify in detail the operations in the Department of the South for the past year, and will be found to contain much that is interesting. I concur with him in his recommendation that Congress be asked to grant the widow of the late First Lieut. H. H. Benner, Eighteenth United States Infantry, an adequate pension. The circumstances of that officer's death are too recent to need special recapitulation in this report. I beg also to add my commendation of the conduct of Second Lieut. C. S. Hall, Thirteenth Infantry, who volunteered for the same service, and after the death of Lieutenant Benner succeeded him in the perilous duty.

I inclose the reports of the chiefs of the staff departments at these headquarters, which exhibit very fully the operations of their departments during the year.

Inspection duty in all branches of the service within my command has been industriously performed during the past year. I ask attention to

the various suggestions made by Inspector-General Nelson H. Davis and by Maj. Richard Arnold, acting assistant inspector-general, in their reports herewith. Colonel Davis's suggestions as to clerical assistance in his department are judicious, but I understand that the general subject of this branch of the military service is now receiving consideration by the honorable Secretary of War, and that it is his intention to recommend legislation for the benefit of clerks of the Adjutant-General's as well as Inspector-General's Department.

For two or three years past Major Arnold has recommended that a suitable officer of the Ordnance Department be detailed to make an inspection of and recommend final disposition of the large amount of property and stores belonging to that department (guns, carriages, implements, &c., of obsolete pattern), of little or no value, at the various posts, and only burdening the returns and occupying buildings that could be used for better purposes, or lying in damp casemates to rust and perish. I would solicit attention to this matter, with a view to Major Arnold's suggestion being carried into execution. I also ask attention to his suggestion as to the propriety of the passage of a law retiring those ordnance sergeants of the Army who have merited such a privilege by years of continuous meritorious service. I concur in this, and also in the recommendation of the inspector-general of the division, that such law should apply to all old and deserving sergeants in the Army, line and staff. As it now stands, these meritorious non-commissioned officers have, if separated from the service, but little prospect for their old age, and it would only be just that the country, which they have long and faithfully served, should provide for them when incapacitated for active service.

I concur, too, with the judge-advocate of the division as to the propriety of a change in the matter of sending all soldiers convicted of felonies to State penitentiaries. While it is no doubt eminently proper to send hardened offenders to these penitentiaries, yet, in cases of first offenses, and where there are evidences that, under judicious treatment, a reformation might be effected, I think it would be better to send such young offenders to an institution such as that referred to by the judge-advocate, viz, the State reformatory institution at Elmira, N. Y. For soldiers convicted of purely military offenses, of course, the military prison at Fort Leavenworth, Kan., is a proper place of confinement.

The report of the judge-advocate contains, in addition, some excellent suggestions as to the jurisdiction of the United States over its military posts in New York Harbor, and their docks, wharves, &c., and in reference to a much-needed sea-wall around Governor's Island, and it is hoped that the honorable Secretary of War will renew to Congress his recommendation for this sea-wall; but the limits of this report will not permit more than this casual reference to the subject.

The reports of the chief quartermaster, medical director, chief paymaster, and chief commissary of subsistence indicate a satisfactory condition of affairs in their departments.

I inclose, also, a report by Capt. H. G. Litchfield, Second Artillery, who has been on special duty at the headquarters Department of the East since November, 1878, in connection with rifle practice. The great improvement in this practice by the Regular Army during the past year is now a matter of public knowledge, and it is, therefore, needless for me to enter upon it in this report, more especially as on the 10th instant I forwarded, for the information of the General of the Army, full reports of the shooting of the several "Army teams," assembled at Creedmoor, L. I., to participate in the international military match, shot

there on the 18th of September last. Although the teams of the Regular Army were unsuccessful in that match, yet they gave ample evidence of their skill and persistent practice, not only in it, but in others in which they took part and were successful. If the great encouragement in this direction shall be continued, highly beneficial results will surely follow.

The discipline and general condition of the troops in this command, as reported to me, are satisfactory and commendable. The diminished strength of artillery companies at many of the sea-coast forts is a serious hinderance to artillery practice and instruction, especially with heavy guns.

The General of the Army having expressed an opinion that there should be at each garrisoned fort at least two companies of troops, steps looking to that end have already been taken, but the deficiency of quarters at many of the posts has delayed the earlier fulfillment of that intention. Orders have already been issued withdrawing the company of the First Artillery from Fort Independence and sending it to Fort Warren, Mass., where there is already one company of that regiment. Estimates for such additional buildings and repairs as may be required at those posts to be so garrisoned are now being prepared, and a proper opportunity is only awaited to carry the programme decided upon into execution. When this has been accomplished, there will be but little reason on the part of post commanders for not requiring a frequent drill and instruction of the troops, as is contemplated by existing orders and regulations. The inspectors-general do not make a favorable report in regard to such drill and instruction, but I am induced to believe that much of this backwardness is due to the very small companies and few of them, in many instances only one, at some of the posts. I am satisfied, however, that at some posts having more than one company the want of efficient instruction and drill must arise from lack of due interest, and measures will be taken to correct this where it is found to exist.

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

WINF'D. S. HANCOCK,

Major-General, Commanding.

The ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

11.—REPORT OF INSPECTOR-GENERAL N. H. DAVIS.

HEADQUARTERS MILITARY DIVISION OF THE ATLANTIC,
INSPECTOR-GENERAL'S OFFICE,
Governor's Island, New York Harbor, October 11, 1879.

SIR: I have the honor to submit my annual report for the year ending September 30, 1879.

The acting assistant inspectors-general of the Departments of the East and South, constituting this division, are, respectively, Maj. R. Arnold, Fifth Artillery, and Capt. G. B. Russell, Ninth Infantry, the same officers as at the date of last year's report. They are both intelligent and efficient officers, and attentive to their duties.

DEPARTMENT OF THE EAST.

Inspections.—Inspections of all the military posts of this department have been made during the year by the department inspector; atten-

tion is respectfully invited to his report. Strength of garrisons at date of inspection is given below, omitting a few officers reported on special duty.

Date of inspection.	Post.	Total present.		Sick.		In arrest or confinement.		On extra duty.		Present for duty.	
		Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	On extra duty.	On daily duty.	Officers.	Enlisted men.
1879.											
Feb. 27 and 28	Fort Columbus, New York Harbor	2	38		2			6	6	2	24
Apr. 29 and 30	Fort Monroe, Va	35	266		6		5	31	31	35	193
May 3	Washington Arsenal, D. C.	5	91		7		5	12	12	5	55
6	Fort McHenry, Md.	12	183		11		7	14	14	12	137
June 20	Fort Warren, Mass	3	32	1	2		3	6	8	2	13
21	Fort Independence, Mass	4	37		1			7	10	4	19
24	Fort Preble, Me	3	35		2		1	13	4	3	15
27	Fort Adams, R. I.	14	182		3		4	13	32	14	130
July 1	Fort Trumbull, Conn	2	38				2	3	8	2	25
15	Fort Wayne, Mich	7	107	1	3		8	10	26	6	60
21	Fort Mackinac, Mich	5	53		3			6	17	5	27
25	Fort Brady, Mich	5	49				1	4	9	5	35
31	Fort Porter, N. Y.	4	51				8	6	12	4	25
Aug. 2	Fort Niagara, N. Y.	3	39				3	6	9	3	21
4	Fort Ontario, N. Y.	3	41		1		2	5	8	3	25
6	Madison Barracks, N. Y.	3	34				4	5	4	3	21
7	Plattsburg Barracks, N. Y.	3	33		1		1	6	9	3	16
Sept. 10	Fort Hamilton, New York Harbor	12	157		9		8	15	26	12	103
23	Fort Wadsworth, New York Harbor	5	73		3		2	16	20	5	32
24	Fort Schuyler, New York Harbor	6	64					10	17	6	37

The above table shows a total of 1,603 enlisted men "present;" and "for duty" 1,013, being only 59.8 per cent. of aggregate strength of commands.

Personnel.—The *personnel* of the troops, respecting the habits of the officers, their attention to duty, and the character of the enlisted men, as shown by the inspections, is good and satisfactory, as also the condition in respect to their discipline, military appearance, equipment, and readiness to march at a moment's notice.

Instruction.—Theoretical and practical instruction of the troops in the artillery and infantry is deficient; it is not that contemplated by regulations and orders. The reason for this deficiency is found in the small number of troops at the several posts and the constant employment of a large percentage of the men on mechanical, fatigue, and other kinds of extra and daily duty.

So long as this condition of things lasts it must be expected that the troops will *not* be properly and fully instructed in their duties and in a knowledge of their profession.

Although experts in the use of the *pick* and *shovel*, and therefore efficient in making roads, throwing up intrenchments, &c., yet it is very desirable, if not indispensable to success in warfare, that they should be instructed in tactics, drills, and be proficient in the use of the guns, small-arms, ammunition, and other means and appliances furnished for use in military organizations.

The necessity for new text-books and instructions in the artillery branch of the service is apparent.

Previous recommendations for establishing the mounted batteries at some suitable post, under the charge of a field-officer selected, for instruction in that *special* and *important* arm of the service, are here renewed.

If the efficiency of these batteries is to be kept up with the progress and improvements in artillery service of the present day, it is imperatively necessary that more and better facilities for instruction, and especially in drills and target-practice with improved ammunition, be afforded than exist under the present system of station and instruction. It seems that without the change recommended and more suitable practice, in consideration of the great improvement in rifle-shooting with small-arms, as practically shown at this time, these batteries would have a short life before sharpshooters, and would become principally useful in firing salutes, &c.

Target practice.—The increased practice in target-shooting with rifle-muskets the past year has given most gratifying results in the improvement in accuracy of fire at short and long ranges, and in creating a most praiseworthy enthusiasm in the Army in this the most important branch of efficiency of troops for civilized or savage warfare.

I renew my recommendation of last year, that annual encampments in each military division of as many troops as it is possible to concentrate for military instruction and rifle practice should be ordered. The importance of such instruction in establishing uniformity therein, and of the increased proficiency in rifle-shooting which would result therefrom, is too apparent to any well-posted military man to need argument.

The scores of the Army teams made at the International Military Match at Creedmoor, L. I., this year, under the circumstances, and the result of their practice there, were very creditable and gratifying. The twelve best shots tied the successful team; and, in previous practice, the Atlantic Team made, as I am informed, a score better than that which won the prize.

Capt. H. G. Litchfield, Second Artillery, who commanded the "Atlantic Team," remarks:

The result is highly encouraging when it is understood that the State teams were composed admittedly of the best veteran military marksmen in the world, thoroughly organized as a team in every particular, and using most perfect weapons and ammunition. Although the Army teams, from lack of opportunity and organization beforehand, must yield the palm this year to the veteran team of the Empire State, without doubt the equal of any ever organized, the fact remains patent that in individual marksmanship, which is the real measure of merit in the soldier, the superiority of our riflemen cannot now be questioned. * * * Among the prizes won by the officers and men of the division during the meeting, especial notice is invited to the great gold medal, won by Sergeant Blue, Tenth United States Infantry; the "Military Championship" gold badge, by Lieut. G. N. Whistler, Fifth United States Artillery; and the second prize in the "International Military Match" for "the highest aggregate score," won by Second Lieut. Thos. J. Clay, Tenth United States Infantry.

Such results in rifle-shooting by our troops, when it is recollected that the introduction into our Army of a system of general practice, with anything like an adequate supply of ammunition for it, is of recent date, is certainly a record that can be referred to with pride and satisfaction, as showing the increased proficiency acquired by a portion of the troops in the use of the rifle, who have had facilities for practice, and in the excellent quality of breech-loading rifles now supplied by the Ordnance Department.

Now that there is a general interest felt in the Army for acquiring proficiency in rifle-shooting, it is hoped that the authorities controlling this matter will take measures to continue this interest by affording increased facilities for practice by furnishing the best arms and ammunition possible for practice, and will ask Congress to provide means for awarding suitable prizes and badges for meritorious marksmanship.

In our country we will probably have for some years hostilities with Indian tribes; and in no kind of warfare will individual marksmanship

with the rifle tell more effectually in securing victory to and preserving the lives of our troops, in economy to the service, and in giving that protection to our frontier settlements and mining interests which they justly claim from the government.

Pertinent to this subject is the following quotation from Lieutenant Greene's recent report of Russian Campaigns in Turkey, to wit :

But all weapons are dwarfed before the breech-loading musket, firing easily five or six shots a minute and carrying to a range of a mile and a quarter. Therefore the infantry is now *more than ever* the arm of the service upon which all the hard fighting devolves, which inflicts and receives the greatest damage, and to which all other parts of an army are merely subsidiary.

I deem it but simple justice to the major-general commanding this division to say that much of the success in rifle-practice in his command is due to his appreciation of the importance of this subject, to his energetic action in this direction, and to the liberal facilities (within his power) afforded for it.

Funds.—Quarterly inspections of disbursing-officers' accounts in the department have been made, excepting for the third quarter, when other duties prevented; disbursements properly made, and balances correct.

Supplies.—The supply departments efficiently administered, and no complaints made.

Clothing.—The clothing now made and furnished the Army is excellent in quality. The old clothing on hand is rather indifferent in quality, and in some cases unsuitable for issue. It is recommended that it be gradually disposed of by sale, issue to prisoners, to asylums for soldiers &c.

Buildings.—Detailed reports have been made of the capacity, condition, and repairs needed respecting the public buildings. A concentration of the troops into larger garrisons would result in economy to, and efficiency of, the service, and the contemplated change to this effect on our northern frontier will, if carried out, require additional quarters and barrack accommodations for the troops.

Ordnance property.—I concur in opinion with the department inspector recommending that an ordnance officer be detailed to inspect and make final disposition of the large amount of ordnance property, of little or no value, at many of the military posts.

Medical department.—The medical department is well provided and administered. Hospitals generally in good condition. The health of the troops has been excellent. Attention to the diet of the troops and the observance of sanitary rules have preserved the health and induced the contentment thereof.

Post schools.—By reference to the reports of the department inspector, it will be seen that there are no post schools for enlisted men at many of the posts; at others there are schools only fairly attended; at some posts no enlisted men competent to teach were found in the command. I recommend that special instructions be given to enlist suitable teachers for each and all of our military posts where a teacher is needed. At some posts suitable buildings for a school were not available.

Signal service.—Most of the posts are supplied with a complete outfit for signaling, but generally little attention is given to the subject. The small number of men for duty and their occupation with other duties will generally account for this.

Cemeteries.—The post cemeteries are reported in fair order, but in some cases needing improvement in their condition.

Ordnance sergeants.—Attention is invited to the recommendation of the department inspector that a law be passed to retire on full pay old

and meritorious ordnance sergeants. I concur in this recommendation with the provision that it shall apply to all old and deserving sergeants of the Army, in the line as well as in the staff.

FORTS.—The barracks and galleries at *Fort Hamilton* reported damp and leaky. Magazine not in good order. Sea encroaching upon 15-inch gun battery.

Fort Warren.—Not properly cared for on account of insufficient force. No drills or parades, nor instruction in the piece, &c.

Fort Adams.—Very little drill at heavy guns; no artillery practice.

Fort Trumbull.—No artillery practice.

Fort Porter.—No drills or parades; no skirmish drill; no recitations.

Fort Brady.—No instruction in battalion or skirmish drills.

Fort Wayne.—No drills since arrival of Tenth Infantry at post, because of reduced strength of companies.

At *Fort Schuyler* sea steadily encroaching on each side of reservation; 20 feet carried away by the abrasion of the sea this year; one severe storm might make a break involving large expenditures; sea wall required. The *neck* connecting the reservation with the mainland is being washed away by the sea, and at high tide is nearly impassible; the causeway needs reconstructing.

The means of extinguishing fires at *Forts Wayne, Adams, and Hamilton* inadequate. This is a matter demanding the attention of the proper authorities.

The variety and amount of duties devolving upon the department inspector give him much hard work in and out of his office, which requires for him the exclusive services of a good clerk.

The penitentiaries at Albany, N. Y., and Columbus, Ohio, have been regularly inspected, as required by existing orders, by Lieut. G. S. L. Ward, aid-de-camp.

DEPARTMENT OF THE SOUTH.

Inspections.—Inspections of military posts and stations in the Department of the South have been made as follows:

The average monthly strength of the garrisons at the several posts, "present" and "for duty" (exclusive of extra and daily duty, and omitting fractions), is given.

Fort Johnston, N. C.—Battery C, Second Artillery, Capt. W. P. Graves, commanding. February 9, 1879, by the department commander and inspector. Present, commissioned officers 3, enlisted men 31; for duty, commissioned officers 3, enlisted men 19—61.3 per cent.

Charleston, S. C.—Headquarters Light Battery F and Batteries E and D, Fifth Artillery, Col. H. J. Hunt, commanding. December 11, 1878, by department inspector, and February 7, 1879, by department commander and inspector. Present, commissioned officers 14, enlisted men 123; for duty, commissioned officers 14, enlisted men 83—67.4 per cent.

McPherson Barracks, Ga.—Headquarters and 9 companies Eighteenth Infantry. December 5, 1878, by department inspector. Also the headquarters and Batteries B, D, E, F, I, L, and M, Fifth Artillery. January 30, 1879, by the General of the Army, department commander and inspector. Present, commissioned officers 26, enlisted men 245; for duty, commissioned officers 25, enlisted men 199—81.2 per cent.

Saint Francis Barracks, Fla.—Batteries A and K, Fifth Artillery, Lieut. Col. F. T. Dent, commanding. February 4, 1879, by the General of the Army, department commander, and inspector. Present, commissioned officers 5, enlisted men 62; for duty, commissioned officers 5, enlisted men 39—62.9 per cent.

Oglethorpe Barracks, Ga.—Battery D, Fifth Artillery, Maj. G. P. Andrews, commanding. February 1, 1879, by the General of the Army, department commander, and inspector. Present, commissioned officers 4, enlisted men 30; for duty, commissioned officers 4, enlisted men 18—60 per cent.

Fort Barrancas, Fla.—Batteries B, L, and M, Fifth Artillery, Maj. W. H. Closson, commanding. February 19, 1879, by General of the Army and department inspector, and May 22, 1879, by department commander and inspector. Present, commissioned officers 7, enlisted men 67; for duty, commissioned officers 7, enlisted men 39—58.2 per cent.

Jackson Barracks, La.—Headquarters and Companies A, D, H, and I, Thirteenth Infantry, Col. P. R. de Trobriand, commanding. February 25, 1879, by the General of the Army and department inspector, and May 21, 1879, by department commander and inspector, also in camp. December 6, 1878, by department inspector. Present, commissioned officers 10, enlisted men 147; for duty, commissioned officers 10, enlisted men 114—77.5 per cent.

Little Rock Barracks, Ark.—Companies C and E, Thirteenth Infantry, Capt. H. B. Rogers, commanding. May 25, 1879, by the department commander. Present, commissioned officers 4, enlisted men 42; for duty, commissioned officers 3, enlisted men 27—64.2 per cent.

Mount Vernon Barracks, Ala.—Company G, Thirteenth Infantry, Capt. E. W. Cliff, commanding. February 21, 1879, by the General of the Army. Present, commissioned officers 3, enlisted men 42; for duty, commissioned officers 3, enlisted men 32—276.1 per cent.

Baton Rouge Barracks, La.—Companies B, F, and K, Thirteenth Infantry, Maj. R. S. La Motte, commanding. February 26, 1879, by the General of the Army and department inspector. Present, commissioned officers 8, enlisted men 87; for duty, commissioned officers 8, enlisted men 58—66.6 per cent.

Chattanooga, Tenn.—Company A, Eighteenth Infantry, Lieut. G. S. Hoyt, commanding. December 16, 1878, by department inspector. Present, commissioned officers 3, enlisted men 35; for duty, commissioned officers 3, enlisted men 24—68.5 per cent.

Abandoned.—Posts abandoned during the year: Charleston, S. C.; Oglethorpe Barracks, Ga.; Baton Rouge Barracks, La.; and Chattanooga, Tenn.

Changes.—The Eighteenth Infantry left the department and division last April, and the garrison at Barrancas Barracks removed in June to Atlanta, Ga. There are but eight companies in the department that have not changed stations during the year.

Money accounts.—Accounts of disbursing officers regularly inspected as ordered.

Instruction, &c.—Instruction in drill and recitations has been fairly kept up at most posts, but particularly well at Fort Barrancas by Major Closson. No battery drills reported in Light Battery F, Fifth Artillery. Excuse given, small number of men. This battery has had recitations, and been occupied otherwise in taking care of its horses, which are seldom used in drill.

Target practice irregularly and little practiced at the posts until the issue of Division General Orders No. 2 (current series), and subsequently for some time, by reason of no suitable practice-ground, as reported at several of the posts, and the fact that the troops were either moving or preparing to change station.

Partial reports of company practice were made in July; weekly re-

ports to department headquarters of the best shots in companies ordered in June.

The progress both in companies and special teams has been satisfactory; the practice has developed many good shots among troops that had not before practiced, and the number of good shots in the department has greatly increased. The best ten shots in companies at each range were published weekly from department headquarters. Prior to June but one company (C, Thirteenth Infantry) regularly practiced, while in July every company except F, Thirteenth Infantry (at Newport Barracks, where no suitable range was available), shot.

Supplies.—The troops have been generally well supplied, the stores usually furnished for a limited time.

Barracks, &c.—The barrack accommodations reported good, except for headquarters and four companies Thirteenth Infantry at Jackson Barracks. Hospitals and storehouses ample and suitable.

Sanitary condition.—The sanitary condition of posts occupied excellent; to avoid danger from epidemics, troops were moved from New Orleans and Barrancas. Those at Key West did not change station, the place being healthy. The general health of troops is excellent.

Discipline.—Discipline reported very good.

Courts-martial.—No officer has been tried by court-martial, and only 53 enlisted men were brought before courts.

Miscellaneous.—No complaints from the men respecting food, treatment, and clothing, except that the want of suitable summer clothing is felt in the department; the troops seem to be contented.

Schools.—There has been a good school at Fort Barrancas and at Newport Barracks; few or none at other posts. It is reported that for children their parents usually prefer sending them to the schools of the towns near to which are the posts. But these schools do not accommodate the enlisted men.

Key West and Newport Barracks.—It does not appear that any inspection has been made of the posts and troops of Key West, Fla., and Newport Barracks, Ky., during the year; the foregoing report shows what inspections of other posts have been made.

Change of regiments.—Since my last annual report the Twenty-second Infantry has left, and the Tenth Infantry has joined the Department of the East.

Contribution to post fund.—I renew a previous recommendation that 50 per cent. of the stoppages against privates, and of fines imposed by sentence of courts-martial in the Army, constitute a post fund to be disbursed for the direct benefit of the enlisted men, under the direction of department commanders.

Personal duties.—My own duties during the year have embraced quarterly inspections of the money accounts of disbursing officers stationed in Maine, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, Ohio, and Michigan; of national cemeteries in New Jersey and New York (by General Order 61, Headquarters of the Army, Adjutant-General's Office, June 18, 1879, I was relieved from the inspection of national cemeteries previously required of me); of public property, clothing, &c., at depots in New York City and Philadelphia; inspections and special investigations at Forts Hamilton, Wadsworth, Schuyler, Montgomery, Warren, Independence, and Plattsburg Barracks, besides others; service as member of a retiring board convened pursuant to Special Order 23, Headquarters of the Army, Adjutant-General's Office, of January 29 1879, and dissolved per Special Order 202, Headquarters of the Army, Adjutant-General's Office, of September

2, 1879; as member of boards for the examination of candidates for appointment in the Army; as member of board of officers for the purpose of examining into the subject of lighting company quarters, &c., and the issue of candles to the Army in different latitudes and in different seasons of the year, convened per Special Order 26, Headquarters Division of the Atlantic, current series, on which duty this board is now engaged; besides miscellaneous duties of other kinds, which have occupied my whole time.

I beg leave to ask and urge the division commander to recommend that estimates for incidental expenses in the Quartermaster's Department be made to provide requisite clerks for the Inspector-General's Department, that its officers may be able to discharge properly and with more satisfaction to themselves and the service their responsible and important duties. Heretofore this department has not been furnished adequate means in this respect, and it is a marked example of discrimination against it as compared with other departments of the service.

The officers of, and on duty in, this department have been, generally, long in the service; they have much hard and fatiguing labor to perform in their inspections and traveling tours of duty, besides office work which requires much writing, examination of papers in the preparation of their reports, and much strictly clerical work in the routine of keeping office records; their duties necessitate frequent examination of papers, orders, and laws to meet the demands made upon them by the service.

Under the existing state of things they are often obliged to work at night in the discharge of their duties, and this after broken of their rest in their journeys, and when it is too great a tax upon them physically and mentally. They should have more time and opportunity to inform themselves respecting the service, and more assistance in the preparation of their work.

It is believed there is not in the whole Army, in line and staff, such a burdensome deprivation of proper clerical and messenger aid in the discharge of important duties in any one branch as exists in the Inspector-General's Department.

The inspector, to discharge the duties imposed on him, must be a kind of peripatetic encyclopedia, having a knowledge of men, transactions, and things. He can no more satisfactorily do the duties properly pertaining to his office, when required to travel and work at clerical details day and night, than can the architect or engineer perform their legitimate duties if required to dress the materials and carry the hod. Reasonable aid, equity, and even justice is respectfully asked.

Very respectfully,

N. H. DAVIS,
Inspector-General, U. S. A.

The ADJUTANT-GENERAL
Military Division of the Atlantic.

12.—REPORT OF BRIG. GEN. C. C. AUGUR.

HEADQUARTERS DEPARTMENT OF THE SOUTH,
Newport Barracks, Ky., October 10, 1879.

SIR: I have the honor to submit annual report for Department of the South, as follows:

At date of last annual report the garrisons of Jackson Barracks, Baton

Rouge, Fort Barrancas, Charleston, Chattanooga, and Little Rock were in summer camp to avoid the epidemic of yellow-fever, then prevalent in portions of the South. These garrisons were returned to their proper stations between October 28 and December 19, 1878.

Lieut. H. H. Benner, Eighteenth Infantry, who had volunteered for the perilous duty of taking charge of distributing supplies from the steamer Chambers to yellow-fever sufferers on the Mississippi River, died "on duty," of the disease he went to alleviate, at Vicksburg, Miss., October 17, 1878.

Full reports of his death were forwarded at the time. Through the generous sympathy of individuals and communities in all parts of our country, partial provision has been made for the support of his destitute widow and children, and it is respectfully recommended that Congress be urged to grant her an adequate pension. In this connection I wish to invite attention to the praiseworthy conduct of Lieut. C. S. Hall, Thirteenth Infantry, who volunteered for the same duty at the same time as Lieutenant Benner, and accompanied him, and after his death succeeded him in charge of the steamer Chambers and supplies, and successfully and satisfactorily completed the work confided to him.

In October, 1878, Captain Pratt's company (E), Thirteenth Infantry, was sent to Hot Springs, Ark., at the request of the superintendent of the reservation and United States commissioners, who had cause to apprehend interference with the performance of their duties; but matters having quieted there, it was, on the 17th of November, by authority, returned to its station at Little Rock.

On December 11 this company was again, upon the renewed application of the superintendent and commissioners, and by authority of the honorable the Secretary of War, returned to Hot Springs, where it still has its temporary station. Barracks are hired and officers receive commutation of quarters. Its duties are to protect government property in charge of the superintendent and the Hot Springs Commission.

On April 9, 1879, Battery I, Fifth Artillery, was transferred from Charleston to McPherson Barracks, Atlanta, Ga.

On the 12th of April, 1879, the Eighteenth Infantry, Colonel Ruger (9 companies from Atlanta and 1 from Chattanooga), left this department for the Department of Dakota, in compliance with General Orders No. 38, Headquarters of the Army, current series.

The post of Chattanooga was the same day discontinued, by authority from Headquarters of the Army, and is now under charge of the superintendent of the national cemetery at that place.

On April 18, 1879, the garrison of Oglethorpe Barracks, Ga. (Major Andrews, and Battery D, Fifth Artillery), was transferred to McPherson Barracks, Ga., and between April 18 and 22 the remainder of the garrison at Charleston (headquarters, Light Battery F and Battery E, Fifth Artillery) was transferred also to McPherson Barracks.

The posts of Charleston and Savannah were then discontinued, under authority from Headquarters of the Army, and left in charge of ordnance sergeants.

Inasmuch as the State of South Carolina declined to receive the citadel at Charleston upon the conditions named by the Secretary of War, application was made by me, on September 26, for authority to give commutation of fuel and rations to a non-commissioned officer to be ordered to Charleston to assist the ordnance sergeant in protecting the property, as the two stations, the arsenal and citadel, are far apart and subject to depredations.

On May 1, Company F, Thirteenth Infantry, was transferred from

Baton Rouge Barracks, La., to Newport Barracks, Ky., and on June 6, pursuant to authority, the post of Baton Rouge, La., was discontinued and the major and Company K, Thirteenth Infantry, transferred to Little Rock Barracks, and Company B transferred to Mount Vernon Barracks, Ala. An ordnance sergeant was left in charge of the barracks.

Anticipating the approach of the yellow-fever season, and pursuant to authority (June 12 and 14), the garrison of Fort Barrancas (Major Closson, and batteries B, L, and M, Fifth Artillery) was transferred to McPherson Barracks, Ga.

June 16, the garrison of Jackson Barracks (headquarters, and companies A, D, H, and I, Thirteenth Infantry) went into summer camp at Atlanta, Ga.

On account of the unfortunat  experience of last year in leaving a detachment of enlisted men at Jackson and Baton Rouge Barracks, where nearly all took the fever, this year Jackson Barracks was left under charge of the ordnance sergeant with hospital steward and four civilian watchmen, all acclimated, under the supervision of Lieutenant Baldwin, Fifth Artillery, acting depot commissary in New Orleans; Acting Assistant Surgeon Artand also remained at the post.

At Fort Barrancas were left the ordnance sergeant, hospital steward, and three civilian watchmen, all acclimated.

The commanding officer at Key West Barracks was authorized, on appearance of yellow fever, to move the troops to Fort Jefferson, Dry Tortugas; but as yet there has been no fever, and the garrison remains at Key West.

It will be noticed that out of the thirty-two companies in this department at date of last annual report, twenty-five have changed station since April 1, 1879 (ten having left the department); seven companies only in the department have not changed station during the past year.

Upon the receipt of General Orders No. 3, current series, Division Headquarters, systematic target practice on the Creedmoor system was enjoined, but satisfactory practice was delayed and interrupted at most posts by the move of the Eighteenth Infantry, the consequent change of station of the garrisons of Charleston and Savannah, and transfer for the summer of the garrisons of Jackson Barracks and Fort Barrancas, the discontinuance of the post at Baton Rouge and the want of suitable ranges, most of the troops being stationed near populous places and many within city limits. Now, however, every company in the department, except the company here, where no available range has been found, practices regularly.

In order to facilitate selection of best shots for practice at Governor's Island, special teams of not less than five men were organized in each company in May last. These teams have now been discontinued, and company practice goes on.

A marked improvement in the number of good shots is seen each month, and praiseworthy interest and enthusiasm in this important requirement is shown by nearly all officers and men.

The troops are well quartered and supplied. Discipline is excellent. Most of the troops are reasonably well instructed, but at small posts and in the heat of summer, drills are necessarily not frequent.

I am pleased to report that no signs of yellow fever or any epidemic have shown themselves at any post or station in this department.

The medical director in report inclosed, refers in terms of praise to the conduct of Acting Asst. Surg. I. W. Scott at New Orleans in 1878, in which I concur. It is referred to in my last report,

As will be seen from inclosed report of the judge-advocate of the de-

partment, there were tried in the department: Officers, none; enlisted men, by general courts-martial (cases), 49; by garrison courts-martial (cases), 681; total, 730 cases. These "cases" tried represent only 237 individual enlisted men; so it will be seen that each of these 237 men was tried on an average three times, while 824 enlisted men were not tried at all. Most of the trials by garrison courts-martial were at posts near large cities, and for absence without leave and intoxication.

Attention is invited to inclosed reports of the chief quartermaster, chief commissary of subsistence, medical director, judge-advocate, and acting assistant inspector-general of the department.

To the officers of my staff, both general and personal, I am indebted for faithful and efficient performance of the duties devolving upon them.

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

C. C. AUGUR,

Brigadier-General Commanding.

The ASSISTANT ADJUTANT-GENERAL,

HEADQUARTERS DIVISION OF THE ATLANTIC,

Governor's Island, New York Harbor.

13.—REPORT OF MAJ. GEN. IRVIN McDOWELL.

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC

AND DEPARTMENT OF CALIFORNIA,

Presidio of San Francisco, Cal., September 30, 1879.

GENERAL: I have the honor to report as follows concerning the service in this division since my last annual report, October 25, 1878:

DEPARTMENT OF CALIFORNIA.

Movement of troops.

At date of last annual report, Company I, First Cavalry, was the only company belonging to the department still absent in the field, in the Department of the Columbia, against hostile Bannock Indians.

October 26, 1878.—Lieut. C. C. Norton, First Cavalry, in command of a detachment of 20 enlisted men of his company (C), escorted Indians from Camp Bidwell, Cal., to Camp Harney, Oreg.

November 3, 1878.—Company I, First Cavalry, rejoined station, Camp Halleck, Nev.

January 15, 1879.—Lieut. O. J. Brown, First Cavalry, with a detachment of 25 enlisted men, Company I, First Cavalry, proceeded by rail to Wadsworth Station, on the Central Pacific railroad, thence marching to Pyramid Lake Indian Agency, for the purpose of aiding the civil authorities as *posse comitatus* to remove squatters from the reservation. The detachment returned to station January 29.

January 25, 1879.—In obedience to telegraphic instructions from these headquarters, First Lieut. Thomas Garvey, First Cavalry, with detachment of Company C, First Cavalry, left Camp Bidwell, Cal., and were absent until January 31, endeavoring to intercept Indian prisoners reported as escaped from Camp Harney, Oreg.

February 1, 1879.—Sergt. Frederick Stones, Company C, Eighth Infantry, with a detachment of 10 men of same company, left Fort McDermitt, Nev., on scout to eastern range of Steins Mountains, Oreg., in pur-

suit of escaped Indian prisoners. Returned to station February 15, without encountering any Indians.

February 17 to 22, 1879.—Capt. E. B. Savage, Eighth Infantry, and Lieut. R. H. Wilson, of the same regiment, with a detachment of their company (E), were on a scout from their station, Fort Gaston, to Stone Lagoon, Cal.

February 22 to March 13, 1879.—Lieut. J. W. Summerhayes, Eighth Infantry, with detachment of 10 enlisted men of Company C, Eighth Infantry, were on scout from Fort McDermitt to "Pete French's Ranch," on the western side of Steins Mountains. No Indians seen.

April 14 to 21, 1879.—Sergt. Frederick Stones, Company C, Eighth Infantry, with detachment of 7 privates of the same company, were on scout from Fort McDermitt toward Owyhee River, Oreg. No Indians seen.

June 11, 1879.—In compliance with instructions from the War Department, Capt. E. B. Savage, Eighth Infantry, with 11 enlisted men of his company, left Fort Gaston, Cal., and proceeded to the Lower Klamath Indian Reservation for the purpose of ejecting the trespassers therefrom. Having accomplished his mission, he returned to his post on the 29th July, leaving his detachment on the reservation to prevent the return of the persons ejected. The detachment is still camped on the reservation.

July 1, 1879.—Lieut. R. H. Wilson, with a detachment of 11 enlisted men of his company (E), Eighth Infantry, left Fort Gaston, Cal., to repair the trail between the post and Arcata, Cal., returning August 26, after completing this work.

July 1, 1879.—Company I, First Cavalry, left Fort Halleck, Nev., on a reconnaissance to Duck Valley, Nev., returning to post July 31, 1879.

Company F, Eighth Infantry, is now under orders, when relieved by Company F, Twelfth Infantry, at Fort Mojave, Ariz., to take station at Benicia Barracks, Cal.

I transmit herewith the following papers concerning this department and the Division of the Pacific:

Annual report of the chief quartermaster, marked A.

Annual report of the chief commissary of subsistence, marked B.

Annual report of the medical director of the Department of California, marked C.

Annual report of the chief paymaster, marked D.

Annual report of the engineer officer, marked E.

Letter from Inspector-General Schriver, marked Ea.

DEPARTMENT OF ARIZONA.

I inclose herewith the report of the department commander of the Department of Arizona (marked F), with the reports of his chief quartermaster (marked G), chief commissary of subsistence (marked H), chief paymaster (marked I), acting inspector general (marked J), medical director (marked K), engineer officer (marked L), and assistant adjutant-general (marked LL).

The department commander asks attention to the condition of the Hualpai Indians, who have been the allies of the United States in their wars with the Apaches, and who have been in a starving condition. The Secretary of War authorized two months' rations to be issued, but this will be but a temporary relief, and I ask some permanent provision be made for these Indians.

He also mentions especially the Pimas, Maricopas, and Papagos, as

needing some immediate attention, and hopes the matter may be referred to the Department of the Interior. I saw some of the Maricopa and Pima Indians last winter. I had seen them many years ago and the change they seemed to have undergone did not impress me favorably. With the building of the railroad to their villages came many temptations and many influences, and it will require care and help from the Department of the Interior to keep these interesting tribes from being dragged by their present surroundings to a lower level than they have heretofore occupied.

I join in recommending an early survey of the new reservation for these Indians on the Salinas. This survey, under the law, cannot be done by the military authorities, but must be done by the Department of the Interior.

There are some renegade Chiricahuas in Mexico, whose chiefs have intimated a desire to return to the reservation to which they belong. As to the measures referred to by the department commander, now being taken for their return, I have given explicit instructions that nothing should be done to touch in any way our international relations with Mexico; that with these Indians, as long as they remain beyond our limits, the military must do nothing.

I again call attention to the condition of the military telegraph line, maintained practically out of the appropriations for the Quartermaster's Department.

The line from San Diego to Maricopaville is utterly unnecessary. It is a rival to the Western Union direct line. The line should be abandoned west of Maricopaville, and as fast as the Western Union line advances with the railroad it should be used, and the military line should be abandoned and transferred to such portions of the Territory—between military posts—as are without the telegraph. There is no comparison in the cost or the efficiency of the service. The station of the officer in charge of the military line has also been heretofore reported against. He might as well be in Washington City as where he is, at San Diego. His being kept there, manifestly out of place, is a subject of constant remark and reproach.

I have twice asked the General of the Army and the Secretary of War to sanction the establishment of a military post in Southern Arizona, but the question was not favorably considered, and the station at Huachuca has been ordered to be kept as a mere camp. But it has been kept there for so long that, little by little, and in spite of orders, shelter for subsistence, forage, medical stores, and for the officers and men have been improvised, and the War Department has recently authorized the erection of a temporary hospital, so that there is now no practical distinction between this and other stations in the Territory. It is established with a view to the Mexican frontier, is of importance, is healthy, and is as near the line of the railroad as any post in that section can be placed and effect the object for which it was established.

The same remarks apply to Camp John A. Rucker. The completion of so many miles of the Southern Pacific Railroad has already had a marked effect on the supply of the troops, and its near completion to New Mexico will still further reduce our expenses and add to the efficiency of the service.

DEPARTMENT OF THE COLUMBIA.

I inclose herewith the report of the department commander, Department of the Columbia (marked M), with the reports of the chief quarter-

master (marked N), chief commissary of subsistence (marked O), chief paymaster (marked P), acting inspecting-general (marked Q), medical director (marked R), acting judge-advocate (marked S), and ordnance officer (marked T), sketch of country between Snake and Salmon Rivers (marked U).

The department commander states that there is a discrepancy between the map of Moses's reservation and the language used in describing it. The map is sustained as correct by the affidavit of Captain Boyle as to the actual agreement between Moses and the Secretary of the Interior. This new reservation has made it necessary to establish a post between it and the white settlers, and measures are now on foot to build a temporary camp near the mouth of the outlet of Lake Chelan. I think this post will prove to be a permanent one; at present it is of great importance.

A few renegade Indians in Northern Idaho have been followed without success in the spring, and with but partial success in the summer and until recently. I am happy to report the persevering efforts of Lieutenant Farrow, Twenty-first Infantry, and his command, after enduring much cold and hunger, have compelled their surrender. The department commander's account represents the country as unusually rough, broken and impracticable, and the service to have been particularly arduous and exhaustive.

There is a question pending as to the use of the Malheur Reservation by the Indian Bureau. If it is intended to retain it and place Indians upon it, a military post will continue to be required. Camp Harney, which is on the reservation, is at a distance from the Agency, is out of position, and costly. It is kept up only because of what is understood to be the intention of the Department of the Interior.

GENERAL SUBJECTS.

First Lieut. William R. Quinan, Fourth Artillery, invented a sight for field-guns which gave such promise of excellence that a board was ordered to report thereon. Upon the favorable report of the board and my recommendation, the Ordnance Department caused one of them to be made at the Frankfort Arsenal. This has been fixed to one of the guns of Hasbrouck's Battery, and has given great satisfaction, as will be seen by the accompanying report and Hasbrouck's letter (marked V).

Yesterday a trial was made with it at target-practice, with a range of about 4,000 yards, in presence of the Chief of Ordnance, who was favorably impressed with its merits.

Sea-coast defense.

I ask attention of the War Department to the imperfect armament of the sea-coast defenses in this division, the guns not being of the kind or size the service now calls for, and even of the kind we have, are not in sufficient number or in a satisfactory state. Several additional 15-inch guns should be mounted, and the light carriage in use should be strengthened. The Chief of Ordnance was here personally, and is fully aware of our deficiencies in this respect, and is fully anxious to remedy them.

I beg to submit herewith a report of a board of officers (marked W), to whom was referred a paper giving an account of a "war game," prepared by First Lieut. C. A. L. Totten, Fourth Artillery. I am not to decide competent the question as to the relative merits of Lieutenant Totten's "war game" as compared with that in use in Europe, but the

subject is an interesting one, and I ask for Lieutenant Totten that the recommendations made by the board be approved.

Rifle practice.

The subject of rifle practice has received especial attention, and it is, I think, of such value that I will state fully what has been done and what has been attempted with respect to it throughout the division.

As Congress does not appear disposed to increase the Army, it only remains to make it more effective by encouraging rifle practice to the utmost—till each man is a perfect shot at all distances within the limits of vision.

The following opinions have been expressed by the General of the Army:

The Adjutant-General says:

MAY 28, 1879.

The Secretary of War has approved the recommendations of the General of the Army, that one set of regulation iron targets be supplied each post; the General is of opinion that a company target should be made on the spot out of old boards or a barrel head.

In respect to approving sleeping-car accommodation to the Creedmoor team, he says:

AUGUST 14, 1879.

I fear this target practice is becoming more costly than is justified by the severe economy which now should be the rule in the Army.

Referring to General Order No. 6, Headquarters Military Division of the Pacific, current series, suggesting a scientific target, and ordering it tried, he says:

The question of target practice has been terminated by the adoption, by the Secretary of War, of the system of Colonel Laidley.

In respect to iron targets, I will remark that they have been abandoned in England and everywhere in this country except at Creedmoor; and there, I am credibly informed, their abandonment is under discussion.

I think they should not be adopted—

1st. On account of their first cost and transportation. Thirty-eight targets, one for each post in the division, which would be an entirely inadequate supply, where a steady, strong prevailing wind each day limits rifle practice to certain hours, would cost \$3,857; one to each company would cost \$8,228.

2d. They soon break up under the impact of bullets.

3d. They require expensive screened butts or covered trenches to protect the markers from injury by the "splash" of the bullets.

4th. By their use every particle of lead is lost.

The company target of "old boards or barrel heads" is only a degree less expensive than the iron targets.

At military posts in this division there are never any "old boards." At most posts there is often not enough lumber to make a coffin. But admitting that lumber can be obtained, it requires 36 square feet inch-lumber to make a 200-yard target, costing in this division 5 cents per square foot, or \$1.80 per target. As 2,080 reloaded shells are fired each month by each company in this division, it would require four (4) such targets for each company per month, costing \$7.20, or \$540 per month for the targets of the seventy-five (75) companies in this division, or \$6,480 for a year.

To furnish barrel heads for 100-yard targets—the only range at which

a target the size of a barrel head is used—would require 9,000 barrels, or 120 for a company.

A barrel head contains about 240 square inches. As 100 bullets, and probably a great many less, would tear one to pices, and as there are 900,000 bullets fired in this division at the 100-yard range per year, it would require 9,000 barrels, or 120 to a company, to furnish targets of this kind.

The only barrels sent to companies in this division are those containing "pork," about ten to each company per year. All other supplies are shipped in sacks or boxes.

Barrel heads cannot, therefore, be relied upon as targets to the extent supposed by the General of the Army.

As to target practice becoming too costly, &c., I beg to say that the cost is not to be estimated by the cartridges and the means used to make men good marksmen, but by the loss of lives, material, and honor that falls upon the Army and country in our numerous Indian wars, by our men not having enough cartridges to practice with to learn how to fire their rifles as well as their enemies do.

This was shown in our Modoc war.

When, in 1874, the present breech-loading Springfield rifle was issued to the troops in this division, all possible efforts were made to bring up the standard of rifle practice. But the limited amount of ammunition issued—15 rounds per man per month—failed utterly to convince the men of the excellence of their rifles and encourage them in its use, much less to make them expert shots.

It was not till 1877, when, by long practice and the use of much ammunition, some men of the national guard of San Francisco were enabled to appear with this rifle as victorious competitors at Creedmoor, that even the Ordnance Department knew of the capability of this coarsely-sighted weapon. A great expenditure of ammunition was, however, necessary to get good results from it at long ranges.

In August, 1876, appreciating the difficulty the command labored under in learning how to use their rifle, application from these headquarters was made for some inferior shell ammunition (on hand at posts in this division, but condemned for war purposes), to be used in target practice. This was granted, but the ammunition was soon exhausted, with little effect upon target practice, except to show that an expenditure of much more ammunition than 15 cartridges per month per man was necessary to produce good marksmen.

The following circular was issued in respect to the above issue :

[Circular.]

HEADQUARTERS MILITARY DIVISION OF THE
PACIFIC AND DEPARTMENT OF CALIFORNIA,
San Francisco, Cal., October 3, 1876.

The following extract of correspondence is published for the information and guidance of all concerned :

HEADQUARTERS MILITARY DIVISION OF THE
PACIFIC AND DEPARTMENT OF CALIFORNIA,
San Francisco, Cal., August 24, 1876.

To the Commanding Officer Benicia Arsenal, Cal.:

SIR: The general commanding desires me to ask you if, as the metallic ammunition made prior to 1874 is unreliable, and prohibited in actual hostilities, it cannot be used by the men at posts where it is, for target practice, saving the shells to be sent to you.

It is reported, and fully believed, that it is quite impossible for men to become good shots, using only 15 rounds per month in target practice.

Very respectfully, your obedient servant,

J. C. KELTON,
Lieutenant-Colonel, A. A. G.

* * * * *

ORDNANCE OFFICE, WAR DEPARTMENT,
Washington, September 12, 1876.

Respectfully returned to the commanding officer of Benicia Arsenal.
There is no objection to the use of this ammunition as within requested.

* * * * *

S. C. LYFORD,
Acting Chief of Ordnance.

By command of Major-General McDowell :

* * * * *

SAM'L BRECK,
Assistant Adjutant-General.

In July, 1877, when the Nez Percé campaign became inevitable, an application was made to place at least the recruits in the field with some knowledge of rifle practice, as follows:

Recruits are coming in very fast. That they may join their companies in the field at once, I desire authority to expend 10 rounds of ammunition per man a day, for instruction at target practice.

To this the following telegram was received:

For exigency, and a limited period, you are authorized by the Secretary of War to expend 10 rounds of ammunition per man a day, for instruction at target practice of recruits referred to in your telegram 10th instant.

This was all very well, but for the want of sufficient ammunition—say 360,000 shell cartridges—with which to instruct the 1,200 old soldiers on that campaign in rifle practice, so as to render them confident in themselves and each other, and expert enough to make close shots at from 200 to 500 yards, the Nez Percé war in this division was nearly a failure, costing many lives unnecessarily, leading to an immense expenditure of material, and a transportation account amounting in the aggregate to \$340,000. The indebtedness of the government due to this campaign, which perhaps the expenditure of \$10,000 for cartridges for previous rifle practice would have in a great measure obviated, is not yet settled by the government. In March, 1878, when it became apparent the division was to be involved in another Indian campaign, application was made in the following terms for an increase of ammunition for target practice:

Wishing the troops of this division, if they should take the field this summer, to go with the utmost confidence in each other, I ask that to each soldier be allowed in target practice during the next month or six weeks 300 rounds of ammunition, or so much as may be required to make him a good shot up to 500 yards and a perfect shot up to 250 yards. It will be great economy in the end, and most encouraging to officers and men.

To which the following reply was received:

For target practice the limits prescribed in General Orders No. 95, of October 4, 1877, must be adhered to, but practice with muzzle-loaders may proceed without limit, provided the cartridges can be had in the arsenal on the Pacific coast.

No time was lost in placing muzzle-loading Springfield rifles in the hands of the troops, and issuing to them such cartridges as were on hand. This ammunition was old, the cartridges unequally charged, the caps would not explode, all of which is shown by the following report, dated May 22, 1878:

Under the authority of the General of the Army, I have the honor to report for his information that muzzle-loading rifles and ammunition have been issued to companies in the division, in the proportion of ten of the former to each company of artillery and infantry, and twenty to each company of cavalry. The good results hoped for from this issue have, however, not been realized. The ammunition is old, the

amount of powder is found to differ in the cartridges as much as seven grains, the caps have become almost worthless, requiring to be snapped several times before exploding, and the old Springfield rifle is found not to be nearly as accurately sighted as the new breech-loader. The effect of all this has been to discourage the men, and force upon company commanders the conclusion that practice with muzzle-loaders injures rather than improves the marksmanship of their men at distances beyond 100 yards.

But so great is the interest in rifle-practice and the desire to be good marksmen, that many company commanders are buying the very simple Sharps and Berdan shell-loaders, reloading their Sharps and Berdan shells with the powder and ball of old muzzle-loading ammunition, and using this ammunition with their breech-loaders.

It is not to be expected that all company commanders will buy them for their men.

I allude to the fact particularly to show that at a very small outlay there is a way by which the Ordnance Department can provide cheap shell ammunition very readily, so that target-practice by companies may be carried on with breech-loaders in an inexpensive manner till every man is a good shot.

There is a special advantage in each man going into action with the rifle he has been practicing with. I hope the General of the Army will use his influence to have 1,000 rounds of the Sharps and Berdan shell-cartridges issued to each company in this division, with the necessary apparatus, including two bullet-moulds and caps for reloading them. The cost to the Ordnance Department to furnish 75 loading apparatus will not exceed \$600, and 1,000,000 caps will cost perhaps \$1,000. A shell can be used a hundred times.

In this way the old ammunition can be used up before it deteriorates, with infinite advantage to the government.

The troops of this division became discouraged and disgusted with the muzzle-loading ammunition, and went into the campaign of 1878 poorer shots than if the muzzle-loaders had not been issued to them, but nevertheless, and happily, better shots than they were the year previous, for many company commanders had bought reloading apparatus, and reloaded the Bridgeport shells, which had been issued to them, with powder and lead from the old paper cartridges.

The following appeal was made to the Ordnance Department in March, 1878, for the issue of reloading shell ammunition and reloading tools:

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC
AND DEPARTMENT OF CALIFORNIA,
San Francisco, Cal., March 22, 1878.

Official copy respectfully referred to the commanding officer Benicia Arsenal, inquiring—

1st. If any simple, inexpensive machine has been devised for refilling and recapping metallic shells, which could be furnished military posts, and which the ordnance-sergeant might use.

* * * * *

3d. Can the shells used at posts be sent to the arsenal and refilled, and sent back without being considered a new issue?

To which the following reply was received from the Ordnance Bureau:

"It has not been considered expedient, in the scattered condition of our troops in small bodies and at long distances, to make arrangements for supplying every post with powder, bullets, and caps, and the necessary machinery for cleaning and adjusting the fired case to its proper size for reloading, and in this view the adoption of a reloading cartridge has not been deemed a necessity in our service. True, we purchase reloading cartridges every year, which are issued to the troops, but the bulk are not reloading. The sending of empty cases to an arsenal for refilling will hardly better the matter, because the transportation will so batter and damage them as to require much labor and machinery to prepare them for reloading. The few cases that would be saved in target practice are all that would be reloaded, for it is scarcely to be expected that soldiers on a scout, or in hunting, or in battle, will save the cases for such purposes.

"The reloading would be feasible, and an economy, where large bodies of troops are stationed, and much ammunition is used in drill and practice, but such is not the case in our service."

However, the appeal made to the Adjutant-General, dated May 22, 1878, already quoted, for the issue of reloading shells and tools, setting forth the utter failure of the muzzle-loader in producing any good results

in rifle instructions, finally induced the Ordnance Department to reconsider its previous action and furnish the shells and tools required, at the same cost to the government, however, that the allowance of ammunition for rifle practice costs, as set forth in the following circulars :

[Circular.]

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC
AND DEPARTMENT OF CALIFORNIA,
Presidio of San Francisco, Cal., September 12, 1878.

The following communication is published for the information of all concerned :

BENICIA ARSENAL,
Benicia, Cal., September 11, 1878.

To the ASSISTANT ADJUTANT-GENERAL,
*Headquarters Military Division of the Pacific and Department of California,
Presidio of San Francisco, Cal. :*

SIR: I have the honor to submit the following indorsement from the Chief of Ordnance, for the information of the general commanding, and to request to be informed to what companies these articles will be issued :

“ORDNANCE OFFICE, WAR DEPARTMENT,
“*Washington, August 30, 1878.*

“Respectfully returned to the commanding officer of Benicia Arsenal. The reloading apparatus and the primers, bullets, and powder, for the Lowell cartridges, will be issued to such commands as the commanding general of the Division of the Pacific may designate. Please confer with him, and request that periodical reports may be made to this office as to the efficiency of the apparatus and the economy of the results.

“S. C. LYFORD,
“*Acting Chief of Ordnance.*”

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

J. McALLISTER,
Lieutenant-Colonel of Ordnance, Commanding.

The commanding officer of the Benicia Arsenal has been requested to issue to all the companies in this division the articles herein mentioned by the Chief of Ordnance. Company commanders will make their requisitions accordingly.

The periodical reports called for will be made upon the bi-monthly report of target practice forwarded to the Chief of Ordnance.

By command of Major-General McDowell :

J. C. KELTON,
Lieutenant-Colonel, A. A. G.

[Circular.]

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC
AND DEPARTMENT OF CALIFORNIA,
Presidio of San Francisco, Cal., October 17, 1878.

Agreeably to the recommendation of the commanding officer of Benicia Arsenal, requisitions of company commanders required by circular of September 12, 1878, from these headquarters, must state the average number of men that may be expected for duty in companies during the year, and will call for—

1 reloading apparatus for cartridge shells.
40 rounds of Lowell cartridges per man.
582 extra bullets per man.
582 extra primers per man.
582 extra charges of powder per man, computed in pounds.

This will give each man 622 shots per year at the same cost to the government as that of the present authorized allowance, 240 cartridges.

If more shots are deemed necessary to perfect the men in target practice after the yearly allowance has been exhausted, the purchase by company commanders of an additional supply of materials is authorized.

The cost of one set of material is as follows :

One bullet.....	\$0.006
One primer.....	\$0.002
One charge of powder.....	\$0.0023
Total.....	\$0.0103

Requisitions already forwarded to the commanding officer of Benicia Arsenal will be amended at these headquarters in accordance with the above.

By command of Major-General McDowell:

J. C. KELTON,
Lieutenant-Colonel, A. A. G.

This would have been quite satisfactory had the allowance promised been furnished, and had the shells furnished fulfilled expectations. That they did not, the following communications show:

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC
AND DEPARTMENT OF CALIFORNIA,
Presidio of San Francisco, Cal., January 21, 1879.

ADJUTANT-GENERAL U. S. A.,
Washington, D. C.:

SIR: Lowell shells and apparatus for reloading the same, having been received and distributed to the troops in this division, I looked forward with much satisfaction to the improvement which this issue would effect in rifle practice. Our troops, after two campaigns, with a prospect of another this year, realize fully the importance of becoming expert riflemen and the advantages now given them to become such. But they are met with an unexpected and discouraging difficulty. The primers sent with the shells do not fit them, cannot be forced in in the manner laid down in the instructions, nor in the manner improvised by the troops, without frequently exploding the primer, and not at all so that the primer will not project too far to take the chamber of the rifle freely. The commanding officer Benicia Arsenal reports the size of the primer due to the carelessness with which the contractors in the East manufactured them, or sent them out.

This matter has been reported by the senior ordnance officer at this coast to the Chief of Ordnance, who, it is requested, will be directed to send proper primers to this division without delay. It is not supposed the government will be at any loss by this transaction, as the contractors can of course be compelled to substitute proper primers at their cost; but the military in this division will be in the meanwhile put to serious delay in their rifle practice, and may be obliged another year to enter the field without that instruction and practice to which they are entitled.

[Circular.]

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC
AND DEPARTMENT OF CALIFORNIA,
Presidio of San Francisco, Cal., April 15, 1879.

The following extract from the proceedings of a board of officers, convened at Presidio of San Francisco, Cal., per Special Orders No. 17, paragraph 1, Military Division of the Pacific and Department of California, series 1879, to report as to relative merits of the Lowell and other shell ammunition, the Lowell and other reloading apparatus, is published for the information of all concerned:

"A report of Captain Miller, dated March 1, 1879, with the indorsement of the ordnance officer at Benicia Arsenal, having been referred to the board by the department commander, the president, in order to determine the influence of resizing upon the life of a Lowell shell [United States Cartridge Company], fired five, as prescribed by Lieutenant-Colonel McAllister, cleaning, oiling, and resizing each time, and five others, beginning to resize only when necessary, which was found to be the case after the ninth round.

"It was found, contrary to the anticipations of the board, that those most frequently resized outlasted the others.

"It having been found that the first Bridgeports [Union Metallic Cartridge Company] soon after resizing began to fail by splitting at the head, these were fired ten rounds without resizing, and then it was endeavored, ineffectually, to resize them without driving the shell entirely home.

"The Winchester [Winchester Arms Company] were cleaned, oiled, and resized after each round from the first, and, apparently, thus more than doubled the life of the shell.

"The result of firing upon twenty cartridges is shown in accompanying table:

	First shell failed on the—	Last shell failed on the—	Average life.
Winchester	8th round	61st round	28.6 rounds.
Lowell	7th round	38th round	19.4 rounds.
Bridgeport	16th round	42d round	24.1 rounds.

"It will be seen that each kind of shell failed in a manner peculiar to itself. The Winchesters and Lowells broke transversely; the former three-sixteenths of an inch, and the latter one-half of an inch, from the head. These shells are very similar in their construction, the main difference between them being in their composition and depth of primer pocket. The Lowell primer may be used with the Winchester shell with much more ease than with its own. The Bridgeports [shells are] quite differently constructed, being made up of three pieces, the cylinder, the reinforce, and the head. The head turns over a shoulder at the base of the cylinder, forming the rim, and here is the weakest part of the shell, being the first to give way. After the rim begins to split, the cartridge may be fired perhaps eight or ten times, when either the head blows off or the anvil is driven in.

The Bridgeports are more rapidly reloaded than the others at first, but as the men become expert the time required for reloading is found to be substantially the same for all. Starting with ten loaded shells of any variety, two men can keep them reloaded as fast as they are usually fired by one and scored; and this is the case until the number of shells falls below five.

Resizing of shells, except Bridgeport, is recommended after each fire from the first; with the Bridgeport [this is] not [recommended] so long as they retain the bullet and will chamber in the gun.

RELOADING-TOOLS.

Lowell reloading-tools, or those now issued by the Ordnance Department (with addition of Remington extractor and recapper for Berdan primers), combine the elements of safety, durability, simplicity, and celerity beyond any other with which the board is familiar.

For field-service a pound flask, with a gauged charger and a funnel, would be desirable—for garrison-service not.

TO RELOAD THE WINCHESTER OR LOWELL SHELLS.

After firing, the shell should be wiped clean with an oiled rag, and then forced home into the resizing-die with a wooden mallet, rather than with a hammer, uncapped by means of punch, and recapped, taking care that the primer does not project beyond the head.

The shell is then forced out of the resizing-die with the driving-punch, inserted in the loading-die inverted, and inserted in safety-socket on a table or bench. It is then charged with powder and bullet, being driven home with punch and mallet until the shoulder of the punch touches the end of the die. The Bridgeport cartridge-shell, when resizing becomes necessary, is reloaded in the same manner, except that the old cap should be extracted before the shell is oiled, and the shell reprimed immediately after coming out of the resizing-die. All tools should be kept clean; excessive force in their use is injurious. The operation of recapping is expedited by spreading the primers bottom up on a table, and picking them up in the pocket as wanted by pressing the head of the cartridge-shell down upon them. This may be done whether the shell is in the resizing-die or not, and is especially useful in repriming Bridgeports by means of the Remington recapper.

Referring to such communications as have been received from department headquarters, calling for reports with reference to the objections urged against the Lowell primer, the board concurs in the following views of Lieutenant Metcalfe:

"The Lowell primer is made purposely large, and requires upsetting to increase its hold against the walls of shallow pocket in the head of the shell. This special construction I consider defective, but its objections are greatly overcome by use of the primer-punch."

EXTRACTING SHELLS.

The board, during its experiments, occasionally found that the headless-shell extractor, when used according to the directions furnished by the Ordnance Department, would not operate successfully. In such cases the extractor should be inserted in the chamber and the breech-block closed. A conical wooden plug, $1\frac{1}{2}$ inches long, and not exceeding $\frac{1}{2}$ inch in diameter at the base, inserted in the bore at the muzzle, and pushed well down within the prongs of the extractor. The breech-block is then opened and the extractor driven out with the ramrod. Ordinarily it will be found unnecessary to repeat this operation; against it but one failure is recorded, and this yielded after a rag saturated with kerosene oil had been allowed to remain in the chamber some three or four hours.

REMARKS.

It was supposed when Division Circular of October 17, 1878, was issued, that the Lowell shell could be reloaded and fired fifteen times without becoming disabled, and

the number of rounds of bullets and powder issued to companies for target-practice was based on that supposition.

The careful experiments herein reported show, however, that this shell cannot be used safely more than six times; that three out of twenty become damaged between the seventh and twelfth round, part of the shell remaining in the barrel, to remove which, under the most favorable circumstances, is liable to cause injury to the rifling.

While the board reports the average life of the Lowell shell to be nineteen rounds, reports of company commanders show that in ordinary practice the average life of this shell is only from nine to twelve rounds. The greatest care is, therefore, enjoined in reloading the Lowell shells, in order that as much practice as possible may be secured from them.

Application has been made to the Ordnance Department requesting the Bridgeport shell be supplied to this division next year.

By command of Major-General McDowell.

J. C. KELTON,
Lieutenant-Colonel, A. A. G.

The issue of a primer-punch in March, 1879, remedied, to a great extent, the difficulty found in repriming the shell.

The foregoing facts are referred to to show how early and persistent has been the action here to secure means to instruct this command in rifle practice. But two-thirds of the reloading material required by companies, on estimates of last year, have been furnished.

The General of the Army, acting, it is presumed, upon the reports of the Chief of Ordnance, is compelled to say, March 21, 1878, in reference to increasing the allowance of target ammunition:

The subject has been thoroughly and completely discussed.
Congress will not appropriate for the costly metallic cartridge for practice.

Again, March 23, 1878:

The limitation in the use of metallic cartridges in practice is a money limitation forced on the Army by the high cost of the cartridges, and the small amount of the annual appropriation for the manufacture of such cartridges.

It is observed that between 1874 and 1879 there has been appropriated by Congress each year, for the purchase of metallic cartridges, only \$75,000.

But it is not only cartridges that soldiers require to make them good shots. They can be compelled to fire, but cannot be coerced into becoming fine marksmen. They must be encouraged to practice with the rifle correctly by receiving consideration and reward for their skill. They must be stimulated to make their best efforts by the publication of what they do, and what others in the same department and division are doing; by sending the few best of each company annually to department headquarters; by sending the eight or ten best shots among these men to division headquarters; and by sending the twelve best of these to Creedmoor, where they may see and learn all that is good in rifle practice, and where, if successful, they will receive the acknowledgments of the country and the government.

The order of the General of the Army last year to send a team of riflemen to Creedmoor produced instant enthusiasm throughout the division.

Unhappily an Indian campaign prevented compliance with the order. Since then, however, in expectation of the same privilege being extended this year, some officers and men in every company have been trying to qualify for this national contest. Thereby they have brought up rifle practice throughout their companies, and have shown, also, that good results in this practice can only be secured by good conduct.

One year and a half ago, in this division, the highest average score made by the best riflemen at 200 yards, and by only a few at that, was from 64 to 70 per cent., Creedmoor system.

That is, the average distance of the bullets of the best marksmen in this division from the center of the "bull's-eye," at 200 yards, was about twenty inches; otherwise stated, one-half the bullets fired by only the best shots at that distance would have disabled an enemy. At the end of June, of this year, whole companies of men, twenty-two in all, made this same score at 200 yards, while there were twelve men whose average score was in excess of 80 per cent., who could, therefore, place their bullets all the time within eight inches of the "bull's eye," or in an enemy at that distance.

The following letter, dated April 28, 1879, to the Chief of Ordnance, shows what has been effected in rifle practice at that date:

In reply to your communication of the 17th instant, I have the honor to say that a very full report of a board of officers, upon reloading cartridges and tools, was forwarded to you through the commanding officer of Benicia Arsenal, on the 5th of April, 1879. This report, made by officers of artillery of the highest standing, and extending over many weeks, will, I think, be found to contain all the information you desire in respect to the quality of the reloading cartridges and tools now issued to this division.

That the issue of reloading cartridges should be continued, only of a better kind, I have no doubt. Indeed, I desire to say, that I think it is of the utmost importance the issue should be continued. Thereby, interest in target practice in this division has extended to every post. What was formerly an occasional duty is now fast becoming a constant pleasure.

Target practice may be expected to have in time, if it has not already, an important bearing upon the conduct of men—for to be good shots they must cultivate good habits.

The positive military advantage growing out of this issue has already been very considerable in effecting improved marksmanship.

Last year at this time the average score of companies at 100 yards was 52 per cent.; at 200 yards was 43.5 per cent.

Now, at these distances, the averages are: At 100 yards, 58 per cent; at 200 yards, 54.5 per cent.

This is an important gain, which could never have been effected under the old issue of 20 rounds per man per month. It has been effected, too, in the inclement months, since the termination of the Bannock war. Of course a much better exhibit is to be expected in September next, when the reloading shell will have been in use a year.

A year ago there was no one in the division who had made a score of 80 per cent. in 10 shots at 200 yards; now there are many who have done this, and twelve whose general averages for many shots during the stormy months of January and February run from 78 to 90 per cent.

All this shows that great interest is taken and fine progress made in rifle practice in this division. By September next I hope to report the effectiveness of the troops in this division increased 30 per cent. during the year.

I therefore strongly urge the continued issue of reloading ammunition, hoping at the same time that a better cartridge will be adopted than that (Lowell) now used.

These are extraordinary results, and were brought about, first, by a desire of the officers and men to be prepared for another campaign, confidently expected in the Department of the Columbia till the first of June last; second, by competition encouraged by officers throughout this division by the bi-monthly publication of company scores, by the medals for best shots in each department and one for the division, and by the hope of being selected to go to the department, the division, and the Creedmoor contests. At the end of April last the average per cent. of companies throughout the division at 200 yards was 54; at the end of July, 57. Had the Lowell reloading cartridges been better, and the shells more durable, the results would have been still better.

The officers in this division complain of the issue of the Lowell cartridge. For a long time the best shots attributed the bad practice they made with the original Lowell cartridge to themselves, but investigation showed the fault was in a greater measure with the cartridges.

The powder was poor, the shells were not uniformly charged, but the principal defect was in the bullet. Ordnance Notes No. 2, dated May 10, 1873, states:

The bullets are "turned" or "whirled" from cold-drawn lead wire, consequently lack uniformity of weight, diameter, and depth of cannellures; and worse, perhaps,

than all else, fully one-half the bullets are turned eccentrically, some to the full amount of the depth cannellures, leaving only a trace of them upon one side, while they are deeply cut on the other.

This defect in the Lowell cartridges, detected and reported by the Ordnance Department in 1873, still exists to an extent to destroy their reliability. Yet with all its defects this cartridge, with its cumbersome reloading apparatus consuming far more time in reloading than others that can be named, was furnished the troops here.

Not only this, but it is to be supplied again this year. While this cartridge is reported to have a better shell, and, also, that a special tool has recently been devised by the Ordnance Department to put the primers of the shell in by pressure, which if issued to the exclusion of the primer-punch will make the Lowell shell more acceptable, yet it is feared the objectionable manner of taking out the exploded cap and the objectionable "*eccentrically turned*" bullet in the original cartridge, will, to a considerable extent, defeat the great advantage to be derived from a really good reloading cartridge like the Bridgeport or Winchester.

Considering the results in rifle practice brought about, in a great measure, by the prospect extended to the whole Army of entering the great national rifle contest at Creedmoor, whereby the soldier is encouraged to make progress which no routine instruction can force him to do, the government, when it ordered the Army to be represented there by a team from each division, may be congratulated upon adopting an economic measure of astonishing proportions. If the Army is made to understand that the thirty-six best shots in it will certainly be sent to Creedmoor every year—sent so that they can, while traveling, sleep at night and arrive in good health and condition, and with rations commuted at a sufficient rate that they can fare well—for riflemen must sleep and fare well—the Army will in a few years become an army of sharpshooters; its effectiveness increased fourfold what it was two years ago. To bring about such effectiveness at whatever expenditure of cartridges may be found necessary would appear to be true economy.

The traveling expenses of these teams will come out of the transportation appropriation. If war prevents a division from being represented, as it has this command for two years, this fund is expended in sending troops to the scene of hostilities. Surely the same fund may be expended properly in sending a few men, when there is no war, to where they can best learn how to prepare themselves and their commands for war by acquiring the art of rifle practice.

The information these Creedmoor competitors may be expected to disseminate in a few years among their comrades who do not go will be in extent and quality such that no book can convey. I propose to utilize the experience and special information concerning rifle practice which the members of the Creedmoor team have gained, by sending them to posts throughout the division to report to post commanders—the officers as range and target inspectors and special instructors; the enlisted men as "coachers" of the non-commissioned officers and best shots.

In this manner the government may be expected to derive a great and immediate benefit from its outlay in preparing and sending a team to Creedmoor.

In respect to the question of "*target practice being terminated* by the adoption by the Secretary of War of the system of Colonel Laidley," I will remark that Colonel Laidley says (page 125), in respect to "*the construction of targets, experience thus far has not been sufficiently comprehensive to enable one to pronounce with certainty which model will be found to fill most completely all the requirements of a good target under all*

circumstances in service, combining economy with convenience." With all the excellence of Colonel Laidley's treatise, he has not mentioned the simple sliding target maneuvered from behind a butt, such as the National Guard of San Francisco have adopted at the San Bruno range and in use at the posts in the harbor of San Francisco, which work as rapidly as men can shoot.

The target in use in this division is the Creedmoor, of paper, pasted over old canvas or cheap cotton fabric. The cost of the target-frame is 30 cents; the covering, if of cotton cloth, 20 cents; the paper target, $3\frac{1}{2}$ cents; the paper paster, per thousand, $14\frac{1}{2}$ cents.

Each company must have at least two targets, as practice in this division, on account of the wind and heat, one or both, everywhere prevailing after 10 o'clock, can only take place early in the morning.

As the frames and covering of cloth last three months, each company will require eight a year, costing \$4. Paper targets are renewed weekly, costing for a year's supply for one company—104 targets and 25,000 pasters—\$6.93.

The whole cost of target practice in this division for seventy-five companies is, therefore, at most, \$819.75.

But as old canvas tents wagon-covers, bed-sacks, have so far been, and will probably continue to be used, to cover the frame, the actual cost is \$120 less.

This is much cheaper than using lumber or barrel-heads; cheaper than using iron targets, for not only must these be renewed every two years on an average, but with them the lead is a loss, while with the canvas target it is saved and can be used again.

As to the Totten target, which has been submitted by a board for trial, and its trial ordered in this division, no opinion upon its merits can be given till tried. Its trial involves very little expense, and in no wise interferes with the ordinary practice and reports of companies at the Creedmoor target, now adopted by the government in adopting Colonel Laidley's Rifle Practice.

If it possesses no advantage in introducing more rapid improvement in rifle practice, this fact will soon become known.

But being a mathematical target, based upon a scientific principle, presented by an officer of the Army, and recommended by a board of officers, and highly extolled by at least one ordnance officer and by the Quartermaster-General, it is certainly worthy of a fair trial.

The rifle team sent to Creedmoor from this division this year for the first time, although not quite coming up to expectations in the great international military match, made 91 more points than the best Army team did last year in the same match. Individual members did splendidly and won a number of prizes, making in off-hand shooting the highest scores of the meeting. The experience gained will enable the team which goes from this division next year to do better. In referring to the team, the commanding general Military Division of the Atlantic is pleased to say:

The officers and men composing it were excellent selections for that purpose, and that all were very assiduous in their efforts to excel in marksmanship, and to benefit by their experience at Creedmoor. Their conduct whilst here was creditable to themselves and to the service.

The following are extracts from reports of officers composing the team. One officer says:

The advantages gained this year by sending teams to Creedmoor has resulted in improving the shooting of the Army 50 per cent. at least, and inciting much thought as to the best open sights for the service. The Ordnance Department had an officer at Creedmoor—First Lieut. David Lisle. He consulted with all the officers of the teams, and as far as I could ascertain the following decisions were arrived at, &c.

Another officer says :

A rifle with increased range and accuracy is required for the service. I suggest that the subject of furnishing a special long-range rifle for sharpshooters be discussed. The necessity for a better rifle than the one now in use in the service for the average enlisted man is not evident; but the service needs a long-range rifle, and it should be placed in the hands of reliable men. Sharpshooting should receive more prominence, as it is not advisable to issue a fine long-range rifle to the entire Army.

A third officer says :

In this connection I would suggest, as the best means of determining what is the best sight for military rifle, that the rules of the National Rifle Association be so amended as to admit the use of any "open" sight in all military competitions. In this way I feel confident that a sufficiently large majority of the experts of America would soon settle upon something really the best.

A fourth officer says :

At Creedmoor the targets are of iron and stationary. The markers are placed in pits under ground in front of the target, looking through glass an inch thick. From this position it is difficult for the marker to see accurately every shot. In this way mistakes are frequently made, and as the decision of the marker is final, dissatisfaction is the result. Moveable targets, both revolving and sliding, have their advocates.

To make this report the more complete, I append circulars and orders issued by me in reference to this matter, and I take the occasion to bear witness to the special knowledge, ceaseless activity and zeal with which the whole subject has been inaugurated and followed up by Assistant Adjutant-General Kelton, to whom the service is largely indebted for the improvement made in this branch of the service within this division. I mention this because his service in this particular was far beyond what merely his office as adjutant-general called for.

Very respectfully, your obedient servant,

IRVIN McDOWELL,

Major-General, Commanding Division and Department.

ADJUTANT-GENERAL, U. S. A.,
Washington, D. C.

14.—REPORT OF BRIG. GEN. O. O. HOWARD.

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, September —, 1879.

SIR: In compliance with your instructions of the 28th ultimo, I have the honor to submit the following report of operations within the department during the past year :

GEOGRAPHICAL BOUNDARIES.

No change has occurred in the geographical limits of the department since the date of my last report.

DISTRIBUTION OF TROOPS AFTER BANNOCK CAMPAIGN.

After the close of the Bannock campaign, the following distribution of troops was made :

Fort Boise, Idaho.—Company A, Twenty-first Infantry, Company G, First Cavalry; Maj. John Green, First Cavalry, commanding.

Fort Canby, Wash.—Company T, Twenty-first Infantry, Company G, Fourth Artillery; Maj. Joseph Stewart, Fourth Artillery, commanding.

Fort Colville, Wash.—Companies E and I, Second Infantry, and Company H, First Cavalry.

Camp Cœur d'Aléne, Idaho.—Companies A, H, and G, Second Infantry; Lieut. Col. Henry C. Merriam, Second Infantry, commanding.

Camp Harney, Oreg.—Company F, Second Infantry, Company H, Twenty-first Infantry, and Companies A and E, First Cavalry.

Camp Howard, Idaho.—Companies C and K, Second Infantry; Maj. David P. Hancock, Second Infantry, commanding.

Fort Klamath Oreg.—Company L, First Cavalry, and Company F, Twenty-first Infantry.

Fort Lapwai, Idaho.—Companies B and D, Second Infantry, and C, Twenty-first Infantry; Col. Frank Wheaton, Second Infantry, commanding.

Fort Stevens, Oreg.—Company M, Fourth Artillery.

Fort Townsend, Wash.—Companies E and B, Twenty-first Infantry.

Fort Vancouver, Wash.—Companies K, D, and G, Twenty-first Infantry; Col. Alfred Sully, Twenty-first Infantry, commanding.

Fort Walla Walla, Wash.—Companies D, F, B, M, and Company K, First Cavalry; Lieut. Col. James W. Forsyth, First Cavalry, commanding.

PRESENT DISTRIBUTION OF TROOPS.

At the date of this report the command is stationed as follows—the principal changes made being incident to the establishment of the new post in the vicinity of Lake Chelan.

Boise Barracks, Idaho.—Company A, Twenty-first Infantry, and Company G, First Cavalry; Maj. John Green, First Cavalry, commanding.

Fort Canby, Wash.—Company G, Fourth Artillery; Capt. Arthur Morris, Fourth Artillery, commanding.

Fort Cœur d'Aléne, Idaho.—Headquarters and band and Companies A, B, F, and G, Second Infantry (Company F temporarily at Fort Harney); Col. Frank Wheaton, Second Infantry, commanding.

Fort Colville, Wash.—Company H, First Cavalry, and Companies C and H, Second Infantry (Company C temporarily at Camp Howard).

Fort Harney, Oreg.—Company F, First Cavalry, Company H, Twenty-first Infantry, and Company F, Second Infantry (Company F, Second Infantry, temporarily at post); Capt. Thomas Drury, Second Infantry, commanding.

Camp Howard, Idaho.—Company D, First Cavalry, Companies C and K, Second Infantry (Company C temporarily at post); Capt. Albert G. Force, First Cavalry, commanding.

Fort Klamath, Oreg.—Company L, First Cavalry, and Company F, Twenty-first Infantry; Capt. Stephen G. Whipple, First Cavalry, commanding.

Fort Lapwai, Idaho.—Company E, First Cavalry, and Company I, Twenty-first Infantry; Lieut. Col. Alexander Chambers, Twenty-first Infantry, commanding.

Fort Stevens, Oreg.—Company M, Fourth Artillery; Capt. Charles B. Throckmorton, Fourth Artillery, commanding.

Fort Townsend, Wash.—Companies E and B, Twenty-first Infantry; Col. Granville O. Haller, U. S. A., commanding.

Vancouver Arsenal, Wash.—Detachment of Ordnance; Capt. John A. Kress, Ordnance Department, commanding.

Vancouver Barracks, Wash.—Headquarters and band and Companies C, D, G, and K, Twenty-first Infantry; Col. Henry A. Morrow, Twenty-first Infantry, commanding.

Fort Walla Walla, Wash.—Headquarters and band and Companies A, B, M, and K, First Cavalry; Lieut. Col. James W. Forsyth, First Cavalry, commanding.

New post near Lake Chelan, Wash.—Companies D, E, I, and K, Second Infantry (Company K temporarily at Camp Howard, Idaho); Lieut. Col. Henry C. Merriam, Second Infantry, commanding.

CHANGES IN THE DEPARTMENT STAFF.

The changes in the department staff during the year have been—

Gain.—Maj. O. D. Greene, assistant adjutant-general, assigned to duty by Special Orders No. 64, War Department, Adjutant-General's Office, and announced in General Orders No. 9, current series from these headquarters.

Maj. Thomas C. Sullivan, commissary of Subsistence, chief commissary of subsistence, assigned to duty per Special Orders No. 225, War Department, Adjutant-General's Office, series of 1878, and announced in General Orders No. 49, series of 1878, from these headquarters.

Capt. John A. Kress, Ordnance Department, chief ordnance officer, assigned to duty per Special Orders No. 154, War Department, Adjutant-General's Office, and announced in General Orders No. 14, current series, from these headquarters.

First Lieut. Thomas W. Symons, engineer officer, assigned to duty per Special Orders No. 58, War Department, Adjutant-General's Office, and announced in General Orders No. 16, current series, from these headquarters.

Loss.—Maj. A. H. Nickerson, assistant adjutant-general, relieved from duty in this department and placed on duty in Adjutant-General's Office, per Special Orders 25, War Department, Adjutant-General's Office, and announced in General Orders No. 2, current series, from these headquarters.

Maj. L. S. Babbitt, Ordnance Department, relieved from duty as chief ordnance officer, per Special Orders No. 154, War Department, Adjutant-General's Office, and announced in General Orders No. 14, current series, from these headquarters.

CHANGES IN THE STAFF DEPARTMENTS.

The changes in the staff departments have been—

Gain.—Surg. F. L. Town, on duty in department per Special Orders No. 58, War Department, Adjutant-General's Office, current series; assigned to duty at Fort Walla Walla, per Special Orders No. 49, current series, from these headquarters.

Assistant Quartermaster Lewis C. Forsyth was assigned to duty in the department per Special Orders No. 91, War Department, Adjutant-General's Office, current series, and is now on duty at Walla Walla as forwarding and disbursing quartermaster of that section of the country, per Special Orders 89, current series, from these headquarters.

Assist. Surg. Peter Moffatt was assigned to the department per Special Orders No. 114, War Department, Adjutant-General's Office, current series, and is now on duty at new post, near Lake Chelan, Washington Territory, per Special Orders No. 96, current series, from these headquarters.

Assist. Surg. Timothy E. Wilcox was assigned to duty in the department per Special Orders No. 114, War Department, Adjutant-General's Office, current series, and is now on duty at Bois  Barracks, per Special Orders No. 64, current series, from these headquarters.

Post Chaplain David Wills was assigned to duty at Fort Walla Walla per letter of June 16, 1879, from the Adjutant-General's Office. He has not yet joined station.

CHANGES IN THE LINE.

The changes among the line officers and enlisted men of the department are shown in the following table:

<i>Gain.</i>	
Officers:	
Transfers, &c	15
Enlisted men:	
Recruits from depot	504
By transfer	10
From desertion	36
	565
Total	565

<i>Loss.</i>	
Officers:	
Transfers	15
Enlisted men:	
Transfer	12
Discharge	264
Death	10
Desertion	192
	493
Total	493

Twenty Indian scouts enlisted are included in this number.

NO GENERAL OUTBREAK.

Since the date of my last annual report (October 15, 1878) there has been no disturbance of the peace which has resulted in any general outbreak.

RUMORS AND THREATS AGAINST THE JOHN DAY BAND OF INDIANS.

The latter part of November, after the removal of the force near Pendleton, the usual fever that follows an Indian campaign filled the air with rumors of outbreaks of Indians, and some of the inhabitants of Eastern Oregon threatened to inaugurate further troubles by killing a band of Indians that had left the Indian reserve without formal permission, and were hovering around their old haunts not far from the mouth of the John Day's River.

HIACKENY'S BAND OFF THE RESERVATION.

Hiackeny was the chief of the band. He was the same Indian that I suspected of acting as a spy last year—an Indian who had previously given a great deal of trouble—once being located at the Warm Springs, and recently for a time at the Umatilla Agency. The band numbered about 80 men, women, and children.

CAPTAIN BOYLE, TWENTY-FIRST INFANTRY, SENT AFTER THEM.

Captain Boyle, Twenty-first Infantry, was sent with his company to capture this band and bring the principal men to his post at Vancouver. He did this work admirably.

BRINGS HIACKENY AND OTHER CHIEFS TO VANCOUVER.

He set out November 21 and returned the 25th, bringing Hiackeny and seven men.

SENDS THE REST OF THE BAND TO WARM SPRINGS AGENCY.

He sent Lieutenant Shofner, Twenty-first Infantry, with a small escort, to take the rest of the band to the Warm Springs Indian Agency. The Indian prisoners were kept at Vancouver Barracks till the arrival of the other prisoners of war from Fort Harney, when they were sent to the Yakama Agency and transferred to Agent Wilbur.

REMOVAL OF THE BANNOCK AND PIUTE PRISONERS FROM FORT HARNEY.

The 28th of November I received telegraphic instructions to remove the Bannock and Piute prisoners (then under guard at Fort Harney) a distance of about 350 miles to the Yakama Reservation. I was to detain from them as prisoners a number of the worst.

The winter was already upon us before the execution of the order could be accomplished.

ESCAPE OF PRISONERS FROM FORT HARNEY.

Just before its receipt several of these prisoners escaped from Harney; the troops were sent in pursuit both in this department and in the Department of California, and they were finally captured—a part near Fort Bidwell and a part near the Klamath Agency. These Indians were sent to these headquarters via Klamath. Those selected from Harney for detention and these from Klamath, captured, I have kept at Vancouver Barracks constantly employed at hard labor.

PRISONERS AT VANCOUVER TO BE SENT TO YAKAMA.

In consequence of their good conduct since they have been here the government has determined to send these prisoners also to Yakama, whither they will be escorted in a few days by sufficient guard.

THE REMOVAL FROM FORT HARNEY TO YAKAMA AGENCY.

The removal of some 600 prisoners, composed of men, women, and children, over the mountain roads, in winter, from Harney to Simcoe, was a difficult and trying operation, and very costly. Capt. W. H. Winters, of the First Cavalry, who had charge of the work, exercised the greatest care. By short marches and the use of abundant transportation, he succeeded in taking them through with an escort of two companies of cavalry, with but small loss of life, two adults, who were already ill, and three children perishing on the journey. He made the transfer to Agent Wilbur, at Fort Simcoe, February 10, 1879.

INDIANS OF THE UPPER COLUMBIA.

During the fall and early part of the winter the Indians of the Upper Columbia that have never been connected with any reservation, or who

have wandered away from different agencies and become nomadic, became involved in troubles with the white people of Yakama County and vicinity. The details are already known to you and need not be repeated here.

ARREST OF CHIEF MOSES AND OTHERS.

They resulted in the capture of the principal chief of these Indians, usually called Chief Moses. He was held as prisoner for some time at Yakama City and Fort Simcoe. Some few of the Indians came upon the reservation, but the majority showed symptoms of increased restlessness and hostility.

REQUISITION FOR TROOPS FOR YAKAMA RESERVATION.

The threatenings resulting on the part of the whites and Indians, and also a formal requisition of Agent Wilbur for the presence of troops, determined me to retain the two escort companies temporarily in the Yakama Valley, and add to them two more from Fort Walla Walla. This was done early in the spring, placing the camp in the Kittitass Valley, near the headwaters of the Yakama River.

UMATILLA MURDERERS ARRESTED AND TRIED BY THE CIVIL AUTHORITIES.

It will be remembered that I recommended that a few leaders of the Piutes and Bannocks, the principal ones being already killed, be surrendered to the civil authorities for punishment. This was really done in Umatilla County, Oregon. Several were tried for murder, found guilty, and executed.

I made simply such disposition of the troops as would prevent an outbreak. The middle of last November all the companies detained in the vicinity of the Umatilla Reservation were sent to the posts where they belonged. Near the time of the execution two companies proceeded from Fort Walla Walla to the neighborhood of Pendleton, where the execution took place, remained a few days, and then returned.

UMATILLA CHIEFS ORDERED TO WASHINGTON.

In consequence of the divisions among the Umatillas, some having been friendly and helping, while others were hostile and engaged in war and murder during the Bannock outbreak, it was thought best by the Interior Department to send the chiefs to Washington for consultation. Agent Cornoyer, of the Umatilla Agency, was to take this delegation.

CHIEF MOSES ADDED TO THE DELEGATION.

To this was added Chief Moses and a number of his tribe. After the delegation was prepared to leave this department for the East, two requisitions were made upon me—one to send an officer with the Indians to Washington, and the other to place an officer and small force at the Umatilla Agency during the absence of the chiefs; the former to give confidence to Moses and some other Indians that they would have a safe journey and return, and the latter to aid the acting Indian agent in preserving the peace.

THREATS MADE AGAINST THE UMATILLA INDIANS.

There were a few disturbances occasioned by some kind of organization among the whites when a purpose was declared to kill Indians found off the reservation and disarm those within its limits.

A SMALL GUARD SENT TO UMATILLA AGENCY AND AN OFFICER DETAILED TO ACCOMPANY THE INDIAN DELEGATION.

There was also quite extensive robbing, quite large bands of Indian horses being seized and driven off. Captain Boyle, of the Twenty-first Infantry, who once had acted as Indian agent for the Umatillas, was detailed to accompany the delegation; Lieutenant Farrow, of the Twenty-first Infantry, with a few men, was sent to the agency to keep the peace. These several measures kept everything quiet.

THE INDIAN DELEGATION RETURNS—RESULTS.

The chiefs returned. The settlements accomplished had, as a result, a good influence in establishing a more permanent peace.

THE RESERVATION FOR MOSES'S INDIANS AND OTHERS ON THE UPPER COLUMBIA.

The Colville Reservation lies between the Columbia and Okanagon Rivers, though the Colville Indians proper have never gone upon the reserve; though a few tribes, nominally under the same agency, are on or near this reservation. Moses declared to me that he would be satisfied with the same territory, and if it could be extended to the Methow River he believed that he could get all the Indians who seemed to have made common cause with him go upon it; so I understood him before setting out for Washington.

DISCREPANCY BETWEEN THE MAP OF THE RESERVATION AND THE DECLARATION.

On his return he showed a map and a declaration setting apart for him and his people, and such other Indians as should choose to go with him, a territory called "Moses's Reservation." It extends from the Colville Reserve to Lake Chelan.

There was a disagreement between the map and declaration—the map taking in the whole, the declaration excluding a portion because it was already given to the North Pacific Railroad Company. The officials of that company, however, agreed to restore the portion north and east of Lake Chelan, as it would never be used by the company. At any rate, the map from the Indian Office and the affidavit of Captain Boyle as to the actual agreement between Moses and the Secretary of the Interior do promise and set apart the entire tract from the Okanagon River to Lake Chelan.

GOVERNOR FERRY REQUESTS THE DEPARTMENT COMMANDER AND TROOPS TO ACCOMPANY HIM IN LOCATING THE MOSES INDIANS.

In view of the perplexities of the situation, Governor Ferry, of Washington Territory, sent me the following dispatch:

OLYMPIA, April 26, 1879.

General HOWARD,

Secretary Schurz directs me to communicate with General Howard at once to prepare for the removal of Moses unbound to the enlarged Colville Reservation. Secre-

tary evidently thinks that a military force is necessary for the protection of Moses when he returns and while he is *en route* to the new reservation. I will go with Moses to Yakama, and if necessary, to the new reservation and may want a military escort, say from Goldendale, for his protection. Will you go also?

FERRY, Governor.

To this dispatch I replied as follows :

VANCOUVER BARRACKS, April 26, 1879.

Governor FERRY, Olympia :

I will have the necessary force ready at Wallula, and will go with you if you desire it. Can go better from Wallula than through Goldendale. The force at Fort Simcoe has already gone on to Ellensburg.

HOWARD,
Commanding Department.

I subsequently received a letter from him dated April 30, to the same purport, in which he says : "The Secretary of the Interior strongly approves my request to you to accompany me. He thinks it is the best thing possible."

EXPEDITION ORGANIZED.

Under the circumstances, I deemed it best to arrange an expedition which would subserve three purposes: one to relieve the community of anxiety, another to further the wishes of the Interior Department as expressed by Governor Ferry and a third to reconnoiter the whole country in the valley of the Upper Columbia and contiguous thereto, with a view of securing some permanent protection to peaceably-disposed Indians and settlers by the location of a new post.

NECESSITY FOR A NEW POST NEAR THE NEW RESERVATION.

In fact, a new post between the whites and the Indians appears to have been a part of the settlement itself, wherein Chief Moses agreed to give up all his claims south and east of the Columbia, and move to the enlarged Colville Reservation.

THE EXPEDITION STARTS.

On the 4th of May Governor Ferry and myself started northward. The Umatilla chiefs went to their homes. Chief Moses and his nephew accompanied us as far as Priests' Rapids. Here we allowed him to visit his people near Moses's Lake, under promise to meet us on a certain day near the mouth of the Wenatchie River.

For the expedition, Lieutenant-Colonel Forsyth, First Cavalry, took Harris's and Bendire's companies from Fort Walla Walla, and proceeded, via Priests' Rapids, to join the four companies already mentioned at Kittitass. The latter were under the command of Maj. John Green, of the First Cavalry.

TEMPORARY CAMP AT PRIESTS' RAPIDS.

During the absence of its officers, Lieutenant Eltonhead has been commanding Captain Burton's company, of the Twenty-first Infantry. He was first assigned to guard the temporary depot at Priests' Rapids, and open the new road across to the Kittitass Camp. As soon as this work had been accomplished he moved his company to Kittitass.

APPREHENSIONS AT YAKAMA CITY.

With Governor Ferry I visited Yakama City, where he explained the purposes of the government, and succeeded in allaying the apprehen-

sions of the people on the subject of their future protection. The murderers of the Perkins family were already here in the jail, and warrants were out for Smoholla and some others supposed to be accessories after the fact. The indictment against Moses on the same charge was still pending. The majority of the people assured the governor that the settlement proposed would be satisfactory to them, provided the troops were so located as to relieve them from constant danger.

THE RECONNAISSANCE TO LAKE CHELAN AND VICINITY.

We proceeded to Kittitass and took the six companies of cavalry for the expedition, leaving Captain Jackson in charge of the camp, with a detail of cavalry and the company of infantry soon to arrive from Priests' Rapids.

WENATCHIE.

We reached Wenatchie on the 27th of May, in three marches from Kittitass. A range of mountains lies between, and had to be crossed by the way of Cook's Cañon. The first day out the trails were almost impassable, the pack-mules wallowing to their bellies in the mire. We encountered a fearful snow and hail storm, the snow continuing on the ground till the next day. After passing the mountains along the river valley, which is quite narrow, the weather became very warm, and the ground was dry and hard.

COUNCIL AT MILLER'S STORE.

Chief Moses and a large number of tribes of Indians, by their chiefs as representatives, met us at Miller's Store, the only place inhabited near the mouth of the Wenatchie.

THE COMMAND DIVIDED.

The governor and myself, at this point, held very satisfactory councils with the Indians, and everything proved so peaceful and satisfactory, that I concluded not to take the entire force any farther. I was the more inclined to this from the conformation of the country. An enormous mass of jagged mountains rises up to obstruct the way, and juts down to the edge of the Columbia.

There were old Indian trails over this range and out along the river, but recent earthquakes had broken up and destroyed them, so that we were forced to cross the Columbia at this point.

DIFFICULTY OF CROSSING MOUNTED TROOPS OVER THE COLUMBIA.

We had never been able to so train our American horses that they will swim the rivers with willingness or ease. After much hard work, Colonel Forsyth succeeded in crossing Harris's and Bendire's companies, with the necessary pack-trains, while Major Green was instructed to remain a few days, reconnoiter the Wenatchie with a view to its claim for the new post, and then return with the four companies to resume command of the camp at Kittitass.

FARTHER UP THE COLUMBIA.

We now proceed up the Columbia, encamping for a short time in the vicinity of Chelan, so as to enable Governor Ferry and myself to cross over and take a look at the Indians and the lake in that vicinity.

A remarkably peaceful old Indian chief, En-e-mo-see-chi, resides here. He became a most friendly interpreter and guide for us ever after.

LAKE CHELAN.

The lake is some 50 or 60 miles long, apparently not more than 3 miles broad at its widest. It stretches back among the mountains, leaving very little land sufficiently level for habitation along its shores. It emerges into the Columbia through a narrow outlet about a mile in length, with a flow of continuous rapids and occasional falls. The mountains environing the lake are thinly timbered. Some of the slopes, though very steep, are open and covered with grass.

I omitted to say that we ascended the slope east of the Columbia, opposite Wenatchie, for 12 miles, and visited the place where Moses and his people were then encamped.

What I have called a slope was ascended by Indian trails, for the most part very steep, and quite impracticable for making of a wagon-road.

There was good water at Moses's Camp, some pines and cottonwood, but timber very scarce.

After ascending the slope, perhaps 6 miles from the river, the eye takes in the vast plains of the Columbia, a rolling prairie, covered at this season with the best of grazing. This is the character of the country generally in this region all along south and east of the Columbia.

OKANAGAN RIVER INDIAN CHIEFS.

The 3d of June we leave the river opposite Chelan, ascend to the high table land, and take a direct course to a point a little above the mouth of the Okanagan. Here Tenasket, Suksupkin, and several other Indian chiefs visit us; also some white men, who said that they lived upon the Colville Reservation or its extension. I believe that all arrangements were finally satisfactory.

LOOKING FOR GOOD LOCATION FOR NEW POST.

This point I reconnoitered very thoroughly, going to the heights so as to view the whole country, crossing the Columbia and the Okanagan, and visiting the streams and lakelets in that neighborhood, all with the hope of finding some acceptable point for the new post. But south of the Columbia there is a scarcity of timber and water, and north of the Columbia neither timber nor water is very convenient; still, after examination, the best practicable site appeared to me to be south of the Columbia, at a point about fifteen miles southwest from the place which Moses has chosen for his new settlement. This will be on a creek, a tributary of the Columbia, named Ka-tah, near by the Nespelum tribe of Indians.

After a few days' delay, to acquaint ourselves with the Indians and their situation, we take our way, Moses and En-e-mo-see-chi accompanying us, over the same great plains that I have described to Spokane Falls, a distance of about 110 miles.

THE SAN POELS.

When opposite the San Poels this singular Indian tribe paid us a visit. They are solicitous of entire and absolute independence of white

men and Indians. Their acting chief is a lame man, much given to dreaming. His dreams appeared to be sensible, and I anticipate no trouble from his people, for they are temperate and industrious. The substance of his dreaming appears to be the prayer of an aged Presbyterian divine, who formerly visited them.

In passing over the grassy plains we found several small streams of water not on our maps. They will be found in Lieutenant Knox's itinerary, but no wood-land till we reached the Crab Creek country, about half way. Settlers are coming in here. They increase in number toward Spokane Falls.

COUNTRY FILLING WITH SETTLERS.

Before reaching Hangman's Creek the country is quite settled up; the hills dotted with new dwellings, the fields plowed, and the children at school. The recent immigration has drifted northward through Moscow, Colfax, Crab Creek, and Hangman's Creek. The hope of the establishment of the new post and the gathering in of the wandering Indians relieve the apprehensions of these numerous settlers.

FORT CŒUR D'ALENE AND COUNCIL AT SPOKANE FALLS.

After inspecting Fort Cœur d'Alene I returned to Spokane Falls, and was present at the Indian councils that were held there. The Spokanes beg that former promises be fulfilled. They say that Col. E. G. Watkins, Indian inspector, promised them a strip of land along the Columbia and the Spokane Rivers. Some of the young men agreed to go with Moses, all, in fact, except the old chief Spokane Garry, provided the Colville Reserve could be extended a little farther eastward, as promised by Watkins.

The growling of Spokane Garry, who would agree to nothing, and the proviso of Lot and the other chiefs may yet cause us trouble; but the Spokanes are not much inclined to war, however hard they may beg for supposed rights and the fulfillment of promises.

RETURN TO VANCOUVER BARRACKS.

After the close of this council, I returned June 24 by the way of Lapwai, sending Col. Forsyth with his escort back to Fort Walla Walla.

ORGANIZATION OF INDIAN SCOUTS.

For fear of possible trouble when the news of a civil posse having killed several Indians on the Upper Columbia, and when about the same time the report that some white men in Umatilla County, Oregon, had fired upon some Indians at Pilot Rock arrived, I deemed it best to organize a small company of Indian scouts. This was done at the Umatilla Agency by Lieutenant Farrow, already on the spot. After training his scouts and occupying the attention of the Indians in that vicinity by reconnaissances, he reported himself in readiness to take the field in any direction as early as July 6.

RENEGADE INDIANS IN NORTHERN IDAHO.

About the 1st of May I received the following dispatches, which I insert with my reply:

SAN FRANCISCO, May 1, 1879.

Commanding Officer Department Columbia, Vancouver, Wash. :

Indian Agent at Lemhi states that a murder of five Chinamen in February last in Southern Idaho occurred at Oro Grand or Loon Creek, 80 miles northeast of Bois ,

and it is supposed was done by Indians, probably some of the hostiles of last summer, who have been wintering with the Sheepeaters on the Middle Fork of the Salmon. The division commander directs that a detachment be sent out from Bois  as soon as the trail can be traveled, and ascertain who the murderers were, and, if Indians, to apprehend them, and bring them into Bois .

KELTON, A. A. G.

VANCOUVER BARRACKS, May 1, 1879.

ASSISTANT ADJUTANT-GENERAL,
MILITARY DIVISION PACIFIC,
Presidio San Francisco :

I was preparing to do nearly as the division commander has ordered concerning the murderers of the Chinamen, intending to submit my plan. I would like also to start another detachment from Camp Howard when the trail will permit, sending two judicious scouts ahead to place these Indians. I am satisfied there is a party of last year's hostiles on the Middle Fork of the Salmon.

HOWARD,
Commanding.

PRESIDIO SAN FRANCISCO, May 3, 1879.

Commanding Officer Department Columbia, Vancouver, Wash. :

Your plan of sending a detachment from Camp Howard to look for the murderers of Chinamen at Oro Grand is approved by the division commander. You are authorized to enlist 20 Indian scouts on or after May 7, as a reduction to that extent will then be effected in Arizona.

KELTON, A. A. G.

Based upon those instructions, I sent the following letter to the commanding officer Bois  Barracks :

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, May 7, 1879.

Commanding Officer Bois  Barracks :

SIR: I am directed by the department commander to inclose you a copy of a dispatch from the division commander concerning the reported murder of Chinamen on Loon Creek. From information received from different sources, the department commander is of the opinion that there is a small band of Indians, composed of Sheepeaters, Putes, and Bannocks, who escaped from the hostiles last year, located on the Middle Fork of Salmon River. He directs that you send your cavalry company, starting it on or about the 1st of June next, for a compliance with the division commander's telegram.

To this end the company will proceed to Challis, Idaho, and operate from that point, provided the information obtained will warrant it. It is probable that a force will be sent from Camp Howard about the same time for the same purpose. This force will consist of about 50 effectives, and will be directed to attempt to form junction with the force from your post as early as possible.

The department commander desires that Captain Bernard be placed in command, and if he be not at the post by the time indicated for starting, that these headquarters be notified by telegraph of the fact. It is expected that, when the two commands come together, Captain Bernard will be the ranking officer, and the command of both forces will devolve upon him. This is the intention of the department commander. It will be wise to keep any Putes or Bannocks who were engaged in last years' war as prisoners of war till you can report and get specific instructions concerning their disposition.

Very respectfully, your obedient servant,

J. A. SLADEN,
Acting Assistant Adjutant-General.

The same in substance was sent to the commanding officer district of the Clearwater, directing that about the same force be sent from Camp Howard to operate toward Challis and form junction with Bernard as soon as practicable.

TROOPS FROM CAMP HOWARD AND BOIS  BARRACKS TAKE THE FIELD.

These instructions were carried into effect from both points, as required ; but owing to the want of trails, the fearfully rough country, and

the deep snows through which the commands had to dig their way in order to get within the limits of the roaming ground of the Indians, great delay was occasioned.

CHARACTER OF THE COUNTRY.

In Captain Bernard's report of July 6 he uses these significant words :

To enable us to get up the river (Middle Salmon) a trail through timber and rocks had to be made all the way.

This was done with the river constantly rising, so that the crossing and recrossing became slow and difficult.

At last the mountains closed in, forming such a cañon as to cause us to leave the river and try the mountains, which are all covered with snow and very rocky.

He represents "pack-mules being carried down-stream, rolling down mountains, causing the loss of many rations and other supplies."

On June 11, Lieutenant Catley, Second Infantry, commanding the Camp Howard force, reports from Warren's :

That nothing towards getting into the country where the Indians are supposed to be can be done till later, when more of the snow has gone.

Also June 16, he reports that he went.

About seven miles from Warren's was obliged to turn back, it being absolutely impossible to get through. * * * I shall now make an effort to get through by shoveling a road (snow perhaps from 5 to 8 feet deep). There is about one mile to be cleared in this way.

Catley was forced to return to Warren's after a second attempt, and remained there till the latter part of June. The 11th of July he has succeeded in getting as far as the mouth of the South Fork of the Salmon.

On the 15th of July, Bernard writes from Cape Horn Valley :

The country is no doubt as rough as any in the United States, and to get at the Indians will be a work of great difficulty. Should they discover us before we do them, they can hide in the timbered Rocky Mountains for a long time and go from point to point much faster than we can, even if we knew where to go.

After speaking of the want of trails and the jagged, rocky country, he says :

We have traveled over much country that no white man ever saw before ; our guides and all miners declaring we could not get through at all.

INDIAN SCOUTS ORDERED INTO THE FIELD.

In order to facilitate operations, I sent Lieutenant Farrow, with his Indian scouts, to go by an intermediate route, crossing the Snake at Brownlee's Ferry, with instructions to form junction with the other troops as soon as possible. He reached Brownlee's Ferry about the 11th of July.

The 16th, from Council Valley, he reports signs of Indians near Wood's Creek, but after scouting the country up and down Snake River he does not find them.

Again, the 27th, his scouts come upon Indian signs, and discover in the distance a camp and herd of animals which they suppose to be Indians. This report goes to Bernard, then about 100 miles from him.

The next day Farrow discovers that the report of the scouts is a mistake ; that the camp belongs to a number of white men, purporting to be

miners, with bands of horses. He endeavored promptly to correct the error, but could not do so in time to prevent Bernard's march of some 70 miles out of his way, this march being occasioned by the first report.

Now to return to Bernard. He sends a dispatch the 5th of August, from a place called Lake Creek, situated just south of the Payette Lakes. He says:

LIEUTENANT CATLEY'S DISASTER.

I have just received a dispatch from Catley, showing that the Indians attacked and defeated his command on the 29th ultimo; his loss, two wounded, all his provisions, greater portion of his baggage, and 23 pack mules. The force of Indians not large, though well posted at the mouth of Big Creek, a stream that flows from the west, emptying into the Middle Salmon, 30 miles below the mouth of Loon Creek. I will get Farrow and go down South Salmon to a point where I ordered Catley to meet me, when we will cross over to the Indian position.

With a view of giving some idea of the skirmish which Captain Bernard denominates a defeat, I will insert a few extracts from Lieutenant Catley's report of August 2:

Having marched into the Big Creek country (Big Creek is a large tributary of the Middle Fork of the Salmon River) I found fresh Indian signs, which led me down Big Creek through a deep and rocky cañon, and the signs becoming fresher I was obliged to follow their trail (which I believe to be the only way through that country) or give up the pursuit.

The result was that on the 29th of July my command struck an ambushade from which, after determining that it was impossible to do anything, the Indians being lodged in a point of rocks across the creek, where they had so fortified themselves that their exact location could not be discovered, I ordered a retreat. The first intimation I had of their presence was a few words spoken by one of their number, which was immediately followed by a volley; two men, Privates Doyle, 2d, and Holm, of Company C, Second Infantry, were seriously wounded, but gotten out from under fire and carried about two miles back up the creek to a point which I selected as one that could be held, where I met the pack-train coming down the creek.

Here I camped; and the next morning putting the wounded men upon hand-litters I moved up a ridge which I thought would lead me into the mountains somewhere near the route I had traveled to Big Creek.

In this I was mistaken. It proved to be an impracticable route, and being incumbered by the wounded men, I was unable to take and hold the points ahead of me, although the Indians were endeavoring to reach them first; they secured a high rocky point ahead of me, and I fell back to a similar point, the wounded and the pack-train arriving there at the same time; there were then Indians ahead and behind. I ordered the pack-train unloaded, and the men to take such cover as they could find in the rocks and behind the cargo and hold the position if the Indians attempted to approach.

The Indians seeing this determination, set the base of the mountain on fire. The wind was high, and the terrible roaring of smoke and flame seemed to approach us from every direction.

First Serg. John H. Sullivan, Company C, Second Infantry, then took a party of men and worked bravely and hard to get a space burned off around us large enough to prevent the fire from reaching our position. This effort, and the fact that the wind seemed to shift just as we were in the greatest danger, alone saved the command.

That night, after the moon had got down, we moved down the side of the mountain, which was so precipitous that it was impossible to bring more than a very small portion of our baggage with us.

Officers and men threw away the greater part of their effects, and I ordered most of the public property abandoned, so that the train might be as lightly loaded as possible with what was absolutely necessary. Some of this was lost in descending the mountain by rolling and straying of the mules. At daylight we were ascending a ridge running parallel to the one we left, and which was found a fair route.

As I had not a sufficient command to establish and hold a camp, to take care of my wounded men, and being crippled in every way by the loss of supplies, animals, equipage, and clothing, I took up my march for Camp Howard, to which point it will be necessary to return and to reit if the command is to keep the field.

I shall order the purchase of sufficient rations at Warren's to last to Camp Howard, and continue my march in that direction as rapidly as the jaded animals and men can travel; at present both are exhausted from fatigue. No ammunition fell into hands of the Indians. I think they got Private Doyle's 2d, rifle.

THE RETREAT ARRESTED.

This rear movement of Lieutenant Catley was promptly arrested by an officer sent from Lapwai by Colonel Wheaton, the instant the report of this defeat and run was made known to him. Very promptly also Captain Forse, First Cavalry, with 25 men of his company, was dispatched to re-enforce and turn the command toward and not from this small body of Indians.

The following dispatch will indicate my action under the circumstances of these reports:

VANCOUVER BARRACKS, *August 24, 1879.*

Captain MCKEEVER,
Commanding Camp Howard,
By mail from Lewiston :

Department commander directs you send the following to Bernard.

SLADEN, *Aide.*

Captain BERNARD,
In the field :

Guard has been sent to Warren's. Indians have been encouraged by apparent misconduct of Catley. Possibly he may redeem himself under your eye ; but his precipitate retreat before inferior numbers is astounding. Sorry for Farrow's unavoidable mistake. Think he will aid you materially. Must leave details to your discretion. These Indians must be defeated or trouble will extend.

HOWARD,
Commanding.

RAINE'S RANCH ATTACKED AND BURNED.

After the above mistakes and false movements, the several detachments formed junction and pushed towards the Indians, a few of whom had left their stronghold, and probably following up Catley burned Raine's ranch, killing the owner and wounding one citizen. Bernard reports from Loon Creek, dated August 26 :

Since my dispatch of the 19th and 20th, Lieutenant Farrow with his scouts has captured 35 head of stock from the hostiles and caused them to abandon all their baggage. They escaped down the Middle Salmon Cañon abandoning everything. The command then turned south for a few miles when they struck the Middle Salmon just above what is called the Impassable Cañon. Here I left Lieutenant Farrow with his scouts to look after the Indians while I, with my company and Captain Forse's 24 men, started to the mouth of Loon Creek, 20 miles distant, to meet the supply train.

I then ordered Captain Forse to return to Farrow's Camp when he would assume command of Catley's and Farrow's command and follow the Indians' trail if possible as long as his rations would allow him to do so. * * * Captain Forse's command consists of 103 persons, packers and all, and has now about eighteen days' provisions, that is, if the train from Camp Howard reaches them. * * * The hostiles do not exceed 30 warriors, and in my opinion are short of that number. They are now destitute of everything, and are believed by the scouts to be going towards Lemhi. The country they were in when we left the trail was so rough that animals could not be got through at all. All our stock except Captain Forse's horses and Farrow's captured stock are exhausted. Many horses and mules have given out and been shot, and unless we have rest and forage, all will soon give out.

EXHAUSTED CONDITION OF CAPTAIN BERNARD'S STOCK.

Five days later Bernard says :

The condition of my stock is such that few would be left at the close of the 22 days. It is my opinion that it will be both economy and for the interest of the service for this command to go to Bois  and refit for the purpose of remaining in the Indian country as long as the Indians do. * * * A small force of troops should remain near Warren's until a properly organized force can be sent against the Indians. * *

The stock of my command is much weaker than I thought they were when I last reported. Will remain in this vicinity until I get an answer.

I had already signified to Captain Bernard that he could best judge of the situation from the field; and also to distribute his command to their proper posts when the object of the expedition had been accomplished.

CAPTAIN BERNARD'S COMMAND AUTHORIZED TO RETURN.

Fearing, after his last dispatch, from the almost impassable nature of the country and on account of the weak condition of the animals, that I might endanger great loss, and cause useless expenditure by an attempt to follow the few scattered Indians further, I sent the following telegram:

VANCOUVER BARRACKS, *September 2, 1879.*

Captain BERNARD,

Care Commanding Officer, Boise Barracks:

Dispatch of August 31, received. If, in your judgment, you have accomplished all you can, you will return with your company to Boise. Instruct Farrow to proceed to Lapwai and report. Send Forse, Catley, and McKeever to Camp Howard, Forse leaving a small guard of mounted men at Warren's. Pitcher can forward his field notes as soon as possible.

HOWARD,

Commanding Department.

RESULTS.

The expedition has not accomplished what was expected by myself, or demanded by your instructions; still, it has revealed a country hitherto quite unknown, and opened the way for more intelligent action in the future.

Lieutenant Catley appears to be much to blame for his timid action and hasty retreat for more than 100 miles. He will be given an opportunity to make full explanation.

MALHEUR INDIAN RESERVATION.

After the section of country roamed over by the Piutes and Bannocks became so completely clear of Indians, I believe that Fort Harney could be abolished; but it is constantly reported that the Piutes are to be sent back to the Malheur Reservation; but from constant inquiries I learn that no Indians are at the agency, and I do not think the Interior Department intends to send back those who were transferred to the Yakama at a large cost, and who are doing remarkably well where they are. At any rate, in the interest of military operations, I strongly recommend that it be not done, for I believe that the ground will have to be fought over again if any considerable number of Indians are placed at Malheur, with the post over 50 miles distant.

But if it should be done, it will be in the line of economy and peace to change Fort Harney to the vicinage of the agency.

It seems hardly possible, however, that the Secretary of the Interior will ever make a removal.

FURTHER NEWS FROM BERNARD.

After the foregoing was written a missing dispatch from Captain Bernard has just come to hand, via Fort Lapwai. From it I make several extracts, which show more effective work than previous reports gave me reason to anticipate.

CAMP ON BIG CREEK,
Ninety miles east of Warren's, Idaho, August 19, 1879.

* * * * *

While the scouts were marching along the trail, the Indians fired upon them from the top of a rocky ridge. The scouts returned the fire, charged across the ridge, drove them from their position, and pursued them down the cañon to their camp, which they found deserted. They left much of their provisions, clothing, cooking utensils, skins, &c. They passed over a high, rocky mountain, going southeast, and have set fire to the country in our front and rear.

Farrow and his scouts are now on their trail. They have done splendid service. Lieutenant Brown was on foot during the entire skirmish, and was the first man in the Indian camp. The country is very rough, probably the roughest in the United States.

The Indians have but little stock. Much of the property taken from Lieutenant Catley's command was found in the Indian camp. Lieutenants Farrow and Brown deserve the greatest credit for bravery and energy displayed since under my command. Their scouts also did splendidly. The entire command was kept close to the scouts during the chase. * * *

Captain Forse's 24 men and Farrow's scouts will follow the Indians' trail as long as it continues toward Loon Creek, when we will go to the mouth of that stream and get supplies; then all again take up the trail wherever it may go. * * * Farrow has just sent a report that the Indians are in full retreat, abandoning property all along the trail. * * *

August 20, 1879.—Just after the command had moved out of camp this morning, and just as the pack-train was moving out, the Indians fired on the rear guard and pack-train from the rocks close by. * * * The Indians were soon dislodged and driven away after the command returned. These Indians did not exceed ten or fifteen. * * *

ECONOMY.

Taking the whole amount appropriated during the year to this department, the sum appears adequate to meet all our official needs; but one difficulty is in limitation upon the amount allotted to barracks and quarters and to incidental expenses of the quartermaster's department. While appropriations have been made to build quarters in several geographical departments, adequate to the requirements, our posts have had only a small allotment to start with.

For example, Fort Cœur d'Alêne had a primary allotment of \$20,000; out of this had to come the steam saw-mill, at a cost of nearly \$5,000, so that a four-company post has been constructed for about \$15,000.

It would seem almost incredible that so much building could be done with so little funds. The barracks, storehouses, quarters, guard-house, offices, the water-works, with other buildings, have been very well constructed, *i. e.*, well considering the means. It has been done by the diligence and industry of the officers and men. Still the conveniences of other posts and the completeness of structures that permanent government works should demand are not best subserved in this way.

As to the other fund so much limited, viz, "incidental expenses," I find a great need in a department with so extended and exposed a frontier; the need is to furnish what we denominate "scouts," "guides," and "messengers." Every department commander finds intelligent men of marked individuality, thoroughly true, and thoroughly acquainted with the country very essential in the way of preliminary information, the prevention of hostilities, and indispensable the moment an outbreak even of small dimensions takes place.

This explanation will account for an apparent extravagance in this during the late campaigns and expeditions in this department; but being notified by the chief quartermaster of the absolute necessity of retrenchment, the following order, which explains itself, was issued:

[General Orders, No. 19.]

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Wash., August 27, 1879.

Owing to the want of funds from the appropriation from which they are paid, no scouts, guides, messengers, or interpreters will hereafter be employed by officers of this command without first obtaining authority therefor from the department commander, except in cases of the most urgent and apparent necessity, when the facts will be at once reported and confirmation of action taken asked for.

Soldiers should be selected for such duty when practicable, and in cases of emergency trustworthy and reliable packers or herders may be used temporarily for the purpose.

By command of Brigadier-General Howard :

O. D. GREENE,
Assistant Adjutant-General.

In view of these remarks it appears to me that it would be in the interest of efficiency and real economy to permit the honorable Secretary of War to transfer, at least, from "Army Transportation," where an excess may and often does occur, to "Barracks and Quarters" and "Incidental Expenses," or to such other smaller items as prove too limited for the estimates and needs. This will prevent a constant return of some appropriations to the Treasury while there is a deficiency in others. It will also lessen the apparent appropriation for the Army and still better meet its requirements.

The chief commissary of the department calls my attention to the law which adds 10 per cent. to the cost of subsistence stores purchased by officers, in order to cover the transportation. When these stores are purchased near a military post, where the cost of transportation is next to nothing, still the officer is charged the 10 per cent. Adding this to the increased cost of the stores in remote sections, the officer has to pay often 20 per cent. more than others who are stationed at the centers of supply. Of course this inequality can only be remedied by legislation.

The want of equity in the charge for fuel to officers of the Army is very apparent when we notice the difference in the amount of fuel required at different stations. In the northern latitudes of course it costs the officers much more than in southern. This can be remedied by returning to the fuel allowance, which I recommend.

I wish specially to commend the officers of the department and personal staff for their uniform diligence, and for the thoroughness of their work during the past year.

The soldiers are made workmen by giving them quarters to build, roads to construct, and other labors from which I wish they could be relieved, with a view of fitting them better for their legitimate duties. Still the target-practice shows well, and the reports of drill indicate diligence and effort to employ every spare moment obtained from hard labor in disciplining the command for service.

The attention of the division commander is invited to the accompanying reports of the chiefs of the several staff departments, viz: Acting assistant inspector-general, chief quartermaster, chief commissary of subsistence, medical director, chief paymaster, chief ordnance officer, acting judge-advocate.

I desire to call special attention to the recommendation of my acting assistant inspector-general upon the subject of reimbursing officers for official journeys. It is a well-known fact that every officer ordered on journeys in this department is at a personal expense of from \$2 to \$4 per day beyond what the government pays him for the journey. While mileage does pay over railroad and steamboat lines, most of the routes traveled by officers in this department are over stage-lines, where the

cost of travel is so great as to oblige officers to take transportation requests.

I earnestly recommend that the present laws be so amended as to permit officers their actual expenses when traveling under orders, or mileage at their option. This amendment to the law is a simple matter of justice to officers of the Army, and would only place them on the same footing as employés of other branches of the government. Even the civilian employés in the Army are given a per-diem allowance when traveling in addition to their actual transportation.

Hoping that this management of the department has met the approval of the division commander, and recognizing gratefully the continued and cordial support he has rendered him.

I remain, very respectfully, your obedient servant,

O. O. HOWARD,
Brigadier-General, Commanding.

The ASSISTANT ADJUTANT-GENERAL
MILITARY DIVISION OF THE PACIFIC,
Presidio of San Francisco.

[Telegram.]

VANCOUVER BARRACKS, WASH.,
October 9, 1879.

To ASSISTANT ADJUTANT-GENERAL
DIVISION OF THE PACIFIC,
Presidio, California:

My annual report indicated a failure in the main object of the expedition against the Sheepeaters and renegades located between Little Salmon and Snake Rivers. Now it is reversed, and the expedition has handsomely been completed by Lieutenant Farrow and his scouts, having defeated the Indians in two skirmishes, capturing their camps with stores and stock. He has finally forced the entire band to surrender, and will deliver them as prisoners of war at this post. Lieutenants Farrow, Twenty-first Infantry, and W. C. Brown, First Cavalry, with the seven enlisted men, citizen employés, and Indian scouts deserve special mention for gallantry, energy, and perseverance, resulting in success. There is not a rougher or more difficult country for campaigning in America.

Please add this to my report.

HOWARD,
Commanding Department.

A true copy:

J. C. KELTON,
Lieutenant-Colonel and Assistant Adjutant-General.

15.—REPORT OF COL. O. B. WILLCOX.

HEADQUARTERS DEPARTMENT OF ARIZONA,
Whipple Barracks, Prescott, September 4, 1879.

SIR: I have the honor to submit herewith my report for the past year.

The condition of the military service has improved in nearly all respects during the year. The bids for supplies at the different posts are generally lower than they were last year.

The influx of miners and stock raisers, with the temptations presented for plunder, has increased the number of thieves, white and red, but considering the very wide extent of Arizona Territory, and its bordering on Mexico, a fair progress has been made in the peaceful settlement of the country under military protection.

The number of authenticated deaths at the hands of the Indians for the year does not exceed five, only one of which can be accredited to Arizona Indians.

Considerable alarm and insecurity was felt when the Eighth Infantry was leaving the department and before the Twelfth Infantry took its place, particularly as the Indians at San Carlos were complaining for food. Another outbreak seemed imminent in the month of April. The Agent at San Carlos reported that the greatest precautions were necessary. On both occasions, the troops were posted to the best advantage, and the Apaches, however excited, were restrained from hostility.

In the month of May, a band of Mescalero Apache warriors, whose wives and children had been moved from their reservation in New Mexico to the San Carlos Reservation, made a descent upon the latter place, probably for the purpose of obtaining their families, but fortunately sufficient notice of their coming was given by their attack on two herders near Clifton, and running off some mules, to put both my troops and the police at the reservation on guard, so that the movement was repulsed and completely frustrated. The Indians were chased by Lieutenant Howard, Twelfth Infantry, with his company of scouts, across the San Francisco Mountains into New Mexico, where the trail was taken up by the troops of that district, and the Indians severely punished.

In June some atrocities were committed in the Tonto Basin, which was followed by an attack on two prospectors on the Mogollon Mountains, near Baker's Springs; but the savages were ferreted out and amply punished. They were found to be a remnant of Tonto Apaches who had never come in. Supposing that after the Baker Springs affair our scouting parties would move to that quarter they returned to Tonto Basin, only to fall into the hands of Lieutenant Von Schrader, Twelfth Infantry, whose Indian company wiped out the whole party, except a squaw, whose life they spared, and whom they brought in unharmed.

The latest killing of whites occurred in the month of August of this year by a company of bandits, made up of American fugitives, Mexicans, and some Indians, who ran up from the Sonora line, carried off stock, and killed two estimable citizens of Arizona, named Shillenback, near old Fort Wallen. These thieves and murderers were vigorously pursued by Lieutenant Bailey, Sixth Cavalry, who started out from Camp Huachuca, as soon as the intelligence was received, and scattered the party across the neighboring frontier. It is to be expected that desperadoes of this class will increase, more or less, until the Southern Pacific Railroad and Atchison, Topeka and Santa Fé Railroad shall be completed, as outlaws seem to hover like vultures over the advance of our transcontinental railroad for gambling and forming transient associations for plundering honest settlers.

These people should be treated as public enemies; but as in the case of stage and mail robbers, than whom there can scarcely be found a class more inimical to the development of a rich mineral country, the *posse comitatus* clause of the law of June, 1878, throws the *agis* of its protection around them. During the year several applications have been made to these headquarters, and the authority of the honorable the Secretary of War was obtained for military protection to the United States mails, and everything has been done by the troops that was practicable under the law above referred to.

I have called repeated attention to the condition of the Hualpais, our friendly and faithful red children, living in the Mineral Park, Cerbat, and Hackberry Ranges, through whose instrumentality, as scouts, Gen-Crook was enabled to subdue the Apaches. It is a bitter reflection upon our justice that these Indians should be allowed to suffer for food, and I would respectfully, but urgently, recommend that an appropriation of, say, \$2,000 a year be asked for the purchase of beef and other necessaries for the relief of destitute Indians by the department commander through his chief commissary of subsistence.

(Since the foregoing was written, authority has been received from the War Department to issue rations for sixty days to these Indians.)

And here comes up a question as to the first steps necessary in civilizing the Indians. The Indians on reservations are under the exclusive control of the Indian Department; those off the reservations come under military, and in organized counties under the local civil governments. Now, as the railroads advance through this department, the whites and Indians will be brought more and more in contact, and the machinery of the civil law does not seem applicable to the organization of the mixed society which ensues; something therefore needs to be done. As the French railroads push down into Algeria the wandering natives of the desert settle around the wells and plant date trees. Here they come to squat and drink whisky. If the moral and intellectual forces at work in the Indian Department could be brought to bear on the question of preparing for these transformations going on all over the western territory, it might save wars and wasteful and inhuman sacrifices and convert our heathen children into civilized societies.

In no part of the United States is there such a field for it as in Arizona, among the Pimas, Maricopas, and Papagoes. These are Pueblo or habitation Indians, grain raisers and pottery manufacturers. But if something is not done to guide their industries, to give their children schooling, to teach them the first principles of town and county government, it will be found that contact with American institutions will soon make them seven-fold nearer the children of hell than if they had never seen "a white man and a brother."

The Papagoes, though not so immediately on and along the railroad lines, are found drifting thitherward in large numbers. These Indians under Mexican auspices have made greater strides toward Christianity than any other tribe I know of. They were essentially, or at least those in the vicinity of Tucson, Catholic Indians. But for the want of a Catholic agent, funds and teachers, their schools at San Xavier have been closed, and they are relapsing fast into ignorance.

I would request that this matter be referred to the Department of the Interior, not only as a question of civilizing the Papagoes, but as an auxiliary of preserving peace with, and maintaining our influence over, this tribe.

The agency at San Carlos is now temporarily in charge of Capt. A. R. Chaffee, Sixth Cavalry, not under military management or control, but under the supervision of the Commissioner of Indian Affairs, and is conducted by the rules of and responsible directly to that office. As a temporary necessity this change seemed to be needed, but I hope that the exigency will not continue long. I doubt, however, whether so important a post, with such a large patronage, can be filled satisfactorily on so small a salary as that paid the civil agent—scarcely equal to a fifth-rate clerkship in any large establishment. His salary should be sufficient to place him above temptation, and to secure high order of ability.

The Salt River land question has been settled by the reservation order originally recommended by Captain Chaffee and myself.

The survey of this new reservation for the Pimas and Maricopas should be made at once, as Indians are already inquiring for the limits within which to lay out their ditches for the next year's cultivation. It would be well to get these red men away from the railroads speedily to their new lands at the confluence of the Verde and the Salt Rivers.

The peace of this department is due to perpetual scouting operations. These are bloodless and silent victories, which assure the prospector, miner, and ranchman unseen protection, and prevent the Arizona renegade, or the predatory hostile from Mexico, from reaching the industrious citizen. But with such a small force, and such an immense stretch of territory, crossed by mountains and hiding-places in every direction, some skulking thieves, like coyotes, will break in. But I question whether the death-rate, or even the stealing, equals that of any civilized country.

The field operations in Southeastern Arizona have been ably conducted by Maj. C. E. Compton, Sixth Cavalry, who has lately been promoted and gone to another department. My thanks are greatly due to this officer for his quickness and vigilance, also for his great discretion and local knowledge in covering the right places with troops at the right time, without uselessly harassing those at rest in camp.

A brief containing scouting operations from the different posts is herewith submitted. It is believed that our scouting operations for the present year will be carried on principally in New Mexico against the renegade Apaches of that district, and on the Sonora line against combinations of Indians with border ruffians. The renegade Chiricahuas, who have given us so much trouble, and concerning whose existence there has been so much dispute heretofore, are authentically located now near Casa Grande, in Chihuahua, from which place they raid out. Measures are now being taken for the peaceful return of the remnants of this tribe.

The friendly co-operation and good feeling which have been exhibited by the Interior Department towards the military has been not only duly appreciated, but productive of good results.

I submit herewith for the information of the division commander and heads of the respective division staff departments the reports of the assistant adjutant-general, acting assistant inspector-general, chief quartermaster, chief commissary of subsistence, medical director, chief paymaster, and acting engineer officer, all of whom have managed their business this year admirably.

The attention of the Adjutant-General of the Army is urgently invited to the report of the assistant adjutant-general in respect to the embarrassment arising in his office from the diminution in the pay of general-service clerks. The amount of work done in this department of the staff is very great, and skill, quickness, and reliability are of the utmost importance at the headquarters of a department that may be considered as always in the field. It is certainly unfair that these clerks should receive less pay than their associates in the other staff departments. But irrespective of the injustice of the case, it has now reached the point that qualified clerks are not to be had for the money allowed. I trust that these important auxiliaries to speedy and correct work at the very fountain-head of this department may soon be placed on the best footing.

Attention is respectfully invited to the subject of "approval of contracts," in the report of the chief commissary of subsistence. He says that the time elapsing between the date of receipt of proposals and the

time fixed for the delivery of supplies is too short to permit of the completion of the contracts and of their transmission for the official action of the division commander. The causes and embarrassing results of this trouble are set forth in his report, and the proper remedy suggested.

The quartermaster's department, on which so much depends, has never been, I believe, in so good a condition.

Much praise is due to the post commanders themselves for the judicious and economical improvement of their posts and the care of their men and of the public property. And great interest also has been manifested at some of the posts in the improvement of officers and men in their shooting. Modern warfare has developed the skirmish line and precise firing into something like a science, depending for its success upon individual shots. But the system of instruction is not yet perfected.

An enlisted man of this department, Sergt. Z. T. Woodall, Company I, Sixth Cavalry, heads the division team for Creedmoor this present year, and Corpl. W. Brill, Company G, Twelfth Infantry, is a member of the team. Forts Verde and McDowell have shown a leading spirit in target practice, and it is believed that all the other posts will do their full part in the future; but the troops farther out have been more taken up with scouting and labor. The present department prize, contributed by the division commander, was duly appreciated by the troops in this part of his command, and was won by Lieut. H. P. Kingsbury, Sixth Cavalry, stationed at Fort Verde.

Much assistance has been received from division headquarters by intelligent direction and stimulating marks of distinction, and the men of this command, under more or less encouragement from their officers, have responded nobly.

Very respectfully, your obedient servant,

O. B. WILLCOX,

Colonel Twelfth Infantry, Brevet Major-General (assigned),

Commanding Department.

The ASSISTANT ADJUTANT-GENERAL,

Military Division of the Pacific, Presidio of San Francisco, Cal.

Brief of scouts made in the Department of Arizona during the fiscal year 1878-79.

Posts.	Date of departure.	Date of return.	Officers in command.	Strength of command.	Miles traveled.	Country passed over.	Remarks.
Fort Apache.....	Dec. 24, 1878	.....	Lieutenant Gatewood.	Company A, Indian Scouts.	.....	Tonto Basin	No further record.
Do.....	Jan. 5, 1879	.....	Major Compton.....	Companies D and E, Sixth Cavalry.	.....	Natanes and Gila Mountains.	To meet Major Morrow at Grant.
Do.....	Apr. 23, 1879	May 24, 1879	Lieutenant Gatewood.	Company A, Indian Scouts.	311	Ojo Caliente	On trail of Victoria and Warm Spring.
Do.....	Apr. 27, 1879	.....	Major Compton.....	Detachment Company E, Sixth Cavalry.	.....	White Mountains.....	To examine trails and visit New Mexico.
Do.....	May 23, 1879	May 27, 1879	Captain Kramer.....	Company E, Sixth Cavalry.	145	Eagle Creek	To prevent Indians turning north to Mormon settlements.
Do.....	May 28, 1879	.....	Captain Hentig.....	Company D, Sixth Cavalry.	.....	Eagle Creek, Natanes Mountains, Ash Creek Valley.	On reported trail of 18 Indians coming westward.
Do.....	June 19, 1879	.....	Lieutenant Gatewood.	Company A, Indian Scouts.	.....	San Francisco Mountains.....	No further record.
Do.....	June 26, 1879	.....	Captain Kramer.....	Company E, Sixth Cavalry.	.....	Between Apache and Verde.	To scout after Indians who killed Kearney.
Fort Bowie.....	Oct. 25, 1878	.....	Lieutenant Blocksom.	Company C, Indian Scouts.	.....	Knight's ranche, Huppo Mountains.	No further record.
Do.....	Dec. 5, 1878	Dec. 30, 1878	.....do.....	Company C, Indian Scouts, detachment cavalry.	358	Hatchet, Los Animas Mountains.	Do.
Do.....	Jan. 30, 1879	Feb. 13, 1879	Captain Madden.....	Company C, Sixth Cavalry, 33 men.	229	Pyramid and Burro Mountains.	Do.
Do.....	Feb. 7, 1879	.....	Lieutenant Blocksom.	Company C, Indian Scouts.	.....	Southern border	This party formed portion of command sent to Quitovaquito.
Do.....	Mar. 17, 1879	Mar. 31, 1879	Captain McLellan.....	Company L, Sixth Cavalry, 36 men.	250	Eastern Arizona and Western New Mexico.	No further record.
Do.....	Apr. 23, 1879	May 15, 1879	Lieutenant Blocksom.	Company C, Indian Scouts, detachment cavalry.	200	Eastern and Southeastern Arizona, Western New Mexico.	Do.
Do.....	May 15, 1879	June 29, 1879	.....do.....	.....do.....	380	Eastern and Southeastern Arizona, Western New Mexico.	To trail party who ran off mules at Clifton.
Do.....	June 16, 1879	June 29, 1879	.....do.....	Company C, Indian Scouts.	.....	Arizona, eastern and southern border.	No further record.
Do.....	June 22, 1879	July 4, 1879	Captain Madden.....	Company C, Sixth Cavalry, 34 men.	200	Ralston, N. Mex	To cut trail of Indians reported in vicinity of Knight's ranch.
Fort Grant.....	Oct. 15, 1878	Oct. 23, 1878	Captain Campbell.....	Company A, Sixth Cavalry, 25 men.	154	Upper Gila and Ash Spring.	In pursuit of renegades. (Apaches from San Carlos.)
Do.....	Jan. 21, 1879	Jan. 30, 1879	.....do.....	Companies A and G, Sixth Cavalry, 31 men.	216	Tres Almos and San Pedro River.	No further record.
Do.....	Feb. 19, 1879	Mar. 5, 1879	Lieutenant Cheever...	Company G, Sixth Cavalry, 39 men.	233	Bowie & Knight's-R.....	Patrol mail-line.

Do.....	May 17, 1879	May 26, 1879	Captain Campbell.....	Company A, Sixth Cavalry, 24 men.	208	Ash Spring and Upper Gila.	In pursuit of Indians reported to have committed depredations near Ash Springs.
Do.....	May 19, 1879	May 23, 1879	Captain Tupper.....	Company G, Sixth Cavalry, 29 men.	90	Grant to Thomas	In anticipation of Indian troubles.
Do.....	June 21, 1879	June 29, 1879	.....do.....	Company G, Sixth Cavalry.	225	Ash Springs	In pursuit of Indians reported to have been seen 10 miles above Ash Springs Crossing.
Camp Huachuca.	June 13, 1878	July 11, 1878	Lieutenant Heneley...	Company D, Indian Scouts, detachment of cavalry, 44 men.	200	Hatchet Mountains and Guadalupe Cañon.	Lieutenant Heneley drowned during this trip.
Do.....	Sept. 4, 1878	Oct. 5, 1878	Lieutenant Perrine...	Company D, Indian Scouts, detachment of cavalry, 45 men.	382	San Simon Valley and Bear Creek, N. Mex.	Indians overtaken in New Mexico, 2 killed; 4 horses, 1 mule captured, 1 Indian scout killed.
Do.....	Oct. 16, 1878	Oct. 29, 1878	.....do.....	Company D, Indian Scouts, detachment of cavalry, 40 men.	175	San Simon Valley to Kn'ts-R.	No further record.
Do.....	Dec. 9, 1878	Dec. 17, 1878	Guide Buford.....	12 Indian Scouts	140	Ash Creek.....	Do.
Do.....	Jan. 12, 1879	Jan. 19, 1879	Non-commissioned of- ficer.	6 Indian Scouts	190	Rio Bonito and Ash Springs.	To obtain information regarding move- ment of renegades.
Do.....	Jan. 19, 1879	Feb. 10, 1879	Lieutenant Tassin....	Company D, Indian Scouts, 31 men.	779	San Simon Valley to Ash Springs.	No further record.
Do.....	Apr. 2, 1879	Apr. 20, 1879	Lieutenant Howard...	Company D, Indian Scouts, 30 men.	139	San Carlos Reservation	In anticipation of trouble with Indians.
Do.....	May 19, 1879	June 7, 1879	.....do.....	Company D, Indian Scouts, 20 men.	441	Fort Bayard, N. Mex.....	Scouting after Warm Springs.
Do.....	June 21, 1879	June 30, 1879	.....do.....	Company D, Indian Scouts, 25 men.	197	Gila River, New Mexico	Reports of Indians being in lower Gila Valley, false.
Fort Lowell.....	Feb. 26, 1879	Mar. 28, 1879	Captain Rafferty.....	Company C, Indian Scouts, and detachment cavalry, 45 men.	445	To Quitovaquito	To report regarding location for tem- porary camp.
Do.....	Apr. 10, 1879	Apr. 22, 1879	.....do.....	Company M, Sixth Cav- alry, 28 men.	110	To old Camp Grant	In anticipation of Indian troubles.
Fort McDowell ..	Nov. 5, 1878	Nov. 18, 1878	Lieutenant West.....	Company B, Indian Scouts, detachment cavalry.	.....	To old Camp Reno	To investigate reported Indian trouble in Globe district.
Do.....	Apr. 3, 1879	May 3, 1879	Lieutenant Von Schra- der.	.....do.....	.....	To McMillanville	To watch eastern boundary of San Carlos Reservation.
Do.....	May 19, 1879	May 23, 1879	Non-commissioned of- ficer.	Company I, Sixth Cavalry, 6 men.	.....	Pine Valley.....	To investigate Indian depredations.
Do.....	June 3, 1879	.....	Lieutenant Von Schra- der.	Company B, Indian Scouts, detachment of cavalry.	.....	East of San Carlos, north of Globe City.	Five Indians killed, 1 squaw captured.
Camp Thomas ..	Sept. 11, 1878	Sept. 11, 1878	Captain Campbell.....	Company A, Sixth Cavalry, 32 men.	30	Vicinity San Carlos	In pursuit of Indians reported to have been seen around Thomas.
Do.....	Sept. 23, 1878	Oct. 3, 1878	.....do.....	Company A, Sixth Cavalry, 31 men.	229	Ash Springs and Upper Gila	After Indians on pass from San Carlos Reservation, reported as committing depredations.
Fort Verde	July 27, 1878	.....	.....do.....	Company A, Sixth Cavalry, 48 men.	208	Verde to Thomas	Changing station, scouting on way.
Do.....	Sept. 11, 1878	Oct. 7, 1878	Lieutenant Baird	Company B, Indian Scouts, and detachment cavalry.	337	Tonto Basin	Overtook some Indians with passes; no renegades seen.
Do.....	Apr. 5, 1879	Apr. 14, 1879	Lieutenant West.....	Cavalry and infantry, 18 men.	200	Apache Trail.....	No signs of Indians.

Brief of scouts made in the Department of Arizona during the fiscal year 1878-'79—Continued.

Posts.	Date of departure.	Date of return.	Officers in command.	Strength of command.	Miles traveled.	Country passed over.	Remarks.
Fort Verde	Apr. 30, 1879	May 20, 1879	Lieutenant Kingsbury.	Company K, Sixth Cavalry, and scouts, 50 men.	.....	Willows on Mojave road.....	To act with Captain Byrne to investigate Hualpai troubles.
Do	May 29, 1879	June 8, 1879	Captain Wallace	Company H, Sixth Cavalry, 38 men.	.....	Tonto Basin.....	To investigate reported outrages in Tonto Basin.
Do	June 25, 1879	June 29, 1879	..... do .....	..... do .....	.....	Green Valley	To follow trail of Indians who killed Kearney.
Do	June 25, 1879	June 29, 1879	Lieutenant Kingsbury	Company K, Sixth Cavalry, 40 men.	.....	Oak Creek	No Indians seen.

16.—REPORT OF MAJ. JAMES BIDDLE.

HEADQUARTERS DEPARTMENT OF ARIZONA,
OFFICE OF THE ACTING ASSISTANT INSPECTOR-GENERAL,
Whipple Barracks, Prescott, Ariz., August 10, 1879.

SIR: I have the honor to submit the following report of the operations of this department of the staff since July 1, 1878.

The posts of McDowell, Lowell, Huachuca, John A. Rucker, Bowie, Grant, Thomas, Yuma, and Mojave have been thoroughly inspected, and the proper reports have been forwarded.

The posts of Whipple Barracks and Fort Apache will be inspected by me this fall.

MONEY ACCOUNTS.

The accounts of the disbursing-officers at these headquarters have been regularly inspected by me, when not absent, and, when absent, as soon as practicable after my return, so as to comply with the order regulating the tri-monthly* inspection of disbursing-officers' accounts.

The accounts of the disbursing-officers at the different posts and stations have also been inspected by myself or by the post commanders, so as to comply with the tri-monthly* order.

The moneys disbursed in this department have, in my opinion, been judiciously and honestly expended.

DISCIPLINE AND DRILL OF TROOPS.

The discipline is good; there has been great attention given to drills and target practice, and there is a vast improvement perceptible in both.

OFFICERS.

The officers of this department as a general thing are upright and energetic in their duties.

SUBSISTENCE.

I think there is an evident falling off in the quality of the stores furnished this department; those purchased in San Francisco, while not of a character to positively condemn, are not of the quality that was furnished two years ago and previous to that date, and show the want of a judicious judgment or experience in purchasing these articles. The coffee and tea are especially complained of.

The chief commissary is energetic in his line of duty, and has tried in every way to improve the prompt delivery of supplies to the various posts in this department.

QUARTERMASTER'S DEPARTMENT.

There has been a vast and marked improvement since Major Weeks assumed the duties of chief quartermaster; the credit of the government with the people stands much higher; the quarters of the garrisons have been much improved.

* Every three months.

MEANS OF TRANSPORTATION.

The old and worn-out mules that were abundant in this department have been or are being replaced by serviceable young ones; the wagons have been repaired or new ones made; the posts generally have been supplied with good and serviceable animals, and an officer can now travel in this department without fear of being turned away after a weary day's march by the station keeper stating his bills had not been paid and he desired no government patronage, but the most marked improvement of all is in the neatness and discipline of the shops and storehouses at Whipple Depot; fat and sleek animals now report to the officer where thin and lanky teams used to be the order of the day. I think too much credit cannot be given to Major Weeks for his care and supervision of the department under his charge.

ARMS AND AMMUNITION.

The arms and ammunition are of excellent quality.

TELEGRAPH LINES,

as a general thing, are not in good order.

INDIANS.

I have traveled through most all of the department without an escort, and have not been molested; the only outrages I know of were promptly punished, and a strict surveillance of their outgoings and incomings is observed by scouting parties.

BARRACKS AND QUARTERS.

Improvements still continue appertaining to the comforts of the officers and men.

MEDICAL DEPARTMENT.

Good care and supervision is given to this department by the medical director; the officers in charge of hospitals are attentive, and great improvements have taken place beneficial to the health of the various garrisons. A liberal supply of money has been granted for this department, which, in my opinion, is being judiciously expended.

PAY DEPARTMENT.

The troops of this department have, as a general thing, been paid promptly as the law requires; the only delays have been in officers being required to renew their bonds, or changes of stations being made.

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

JAMES BIDDLE,

Major Sixth Cavalry, Acting Assistant Inspector-General.

ASSISTANT ADJUTANT-GENERAL,
Department of Arizona.

17.—REPORT OF MAJ. GEN. J. M. SCHOFIELD.

HEADQUARTERS DEPARTMENT OF WEST POINT,
UNITED STATES MILITARY ACADEMY,
West Point, N. Y., October 18, 1879.

SIR: I have the honor to submit the following report upon the condition of the Military Academy, and the progress made in educational and material improvements during the past year.

STATE OF INSTRUCTION AND DISCIPLINE.

The instruction in the several departments of the Academy during the past year has been fully up to the previous high standard of the institution, and the progress of the several classes has been satisfactory. The general state of discipline in the corps of cadets has also been all that could be desired, with the single exception that the chronic vice of hazing has not been wholly suppressed. This offensive practice, which has so long been a cause of reproach to institutions of learning, is gradually yielding before the more enlightened and refined sentiments which govern the relations between young gentlemen of the present day. It is believed that this cause of reproach will soon disappear forever from the Military Academy.

COURSE OF INSTRUCTION AT THE ACADEMY.

The change introduced two years ago by the restoration of instruction in the English language in the first year's course, has proved beneficial. It will secure a higher standard of general education among the graduates. This change and the others which have been recommended by the Academic Board, to take effect in due course of time, will, it is believed, give the most profitable employment of the four years allotted to the education of young officers of the Army, based upon the preliminary education now prescribed as the necessary qualification for admission to the Academy.

POST-GRADUATE INSTRUCTION.

To properly supplement this course of instruction at the Academy, it is requisite that young officers be given reasonable facilities and encouragement in all arms of the service to continue their professional studies in connection with the practical application of military principles. Without such opportunities little further progress is generally made after leaving the Academy, and much that has been learned is soon lost. Good opportunities are now afforded for such a post-graduate course of studies to the young officers who are detailed as instructors at West Point, and to those who enjoy the benefits of the Artillery School at Fort Monroe, as well as to those of the engineers and ordnance. It is greatly to be desired that a similar school for the infantry and cavalry may be established at no distant time.

ADMISSION OF CADETS.

As the standard of general education throughout the country has gradually advanced, the qualifications of candidates for admission to the Military Academy have naturally shown corresponding improve-

ment. On the other hand, the rigid examination for admission to the Academy have doubtless had their due weight in stimulating to a more thorough method of instruction in the public schools where the young men are generally prepared for admission to the Academy. The influence thus exerted, though perhaps not very great, is felt in all parts of the country, and hence is generally beneficial. At the same time, the rule established by law as a general one, and now made nearly universal by the recent practice of the War Department, of making cadet appointments a year in advance of the time for admission to the Academy, gives to every appointee of fair ability sufficient time to make the necessary preparation. The doors of the Academy are thus left as wide open to young men of talent as they were when the standard of admission was much lower. It is respectfully recommended that this practice be continued.

The standard of admission to the Military Academy must, doubtless, continue to be practically determined by the general state of education in all parts of the country. It has risen to its present level with the growth of general education, and it cannot be arbitrarily forced beyond the level which the general education of the youth of the country may at any time determine. It must be kept at a point which will permit the least favored sections of the country to send young men to the Academy duly qualified for admission. The present equitable apportionment of cadetships among all the States and Territories in proportion to population is so just and so important a feature of the present system that it cannot be sacrificed for the purpose of securing a higher standard of admission to the Academy. Yet, while the minimum standard of admission to the Academy cannot be materially changed, if there are any among the candidates who possess much higher qualifications than this standard requires, there seems no sufficient reason why they may not be given the full benefits of their superior attainments by being admitted to a higher class in the Academy. It does not seem necessary that either they or the government be subjected to the expense and loss of time involved in their going over again a course of studies with which they are already familiar. Young men of the age, intelligence, and habits of industry implied by the possession of such higher qualifications would find no difficulty in the course of practical military instruction, though they were given only three years for the course to which four years are allotted for younger men, with less preparatory training. It might be that few or none of the candidates would at first prove to be duly qualified to enter the third class, yet it might reasonably be expected that the opportunity to take this advanced standing at the start would lead to the necessary preparation therefor by some proportion of the candidates who have favorable opportunities for early education. It would seem but just that such higher attainments should be duly recognized in admissions to the Academy, no less than in graduation. My present purpose is simply to suggest this as a subject worthy of mature consideration in connection with the general question of increasing to the greatest practicable extent the usefulness of the Military Academy to the entire country.

SELECTION OF CANDIDATES.

The method adopted by some members of Congress, which seems to be becoming more general every year, of selecting their nominees by competitive examination among the young men of their respective districts, has resulted in a marked improvement in the average qualifica-

tions of candidates. In this respect this method of selection is highly beneficial. It is, however, liable to one source of injury, against which it is important to guard, especially since the method of selection seems likely to become very general, if not universal. While the member of Congress is relieved by this means from the very difficult task of selecting a candidate who shall certainly possess the requisite mental and physical qualifications, his responsibility still remains for the moral character of his nominee. Good character and manly deportment are certainly no less important than scholarship and physical health. Bad habits contracted by a young man already twenty or twenty-one years of age are not easily corrected, and they are more likely than any lack of mental ability to bring mortification and disappointment to those who are most interested in his honorable career. If manly character, physical perfection, mental ability, and scholarship can all be given their due weight in the competition for appointments, then only unmixed good may be expected to result from this method of selection. My desire is to simply invite the attention of the honorable Representatives in Congress to this subject, which might otherwise escape the attention of some of them in making selections by competition, as it could not do where the selections were made from their own personal knowledge of the applicants.

EDUCATION OF OFFICERS FOR THE MILITIA OF THE UNITED STATES.

I beg leave to suggest, for the consideration of Congress, that the great facilities now afforded by the Military Academy might, with comparatively small additional cost, be made available for the education of a considerable number of young men in excess of the annual vacancies in the Army, to be returned to their respective States for service in the organized militia. It is believed that the States could not fail to derive great benefit from the service in their militia of a corps of officers thus educated, while the Military Academy and Regular Army of the United States would thus be brought into more intimate relations with the great body of citizen soldiers who must compose the armies of the country in time of war. These young men would not necessarily pass through the higher course of studies necessary to qualify them for the engineers or ordnance, but could graduate at the end of two or three years qualified to command infantry, cavalry, or field artillery. From the whole number of young men thus educated might be selected those best qualified to receive the higher education required for service in the scientific corps of the Army.

The machinery of a complete military academy is too expensive to be maintained separately by each of the States. Why not let all derive some direct benefit, at slight expense, from the one national military school?

MATERIAL IMPROVEMENTS.

The material improvements authorized under appropriations made by the last Congress are rapidly progressing.

The new system of sewerage was completed early last spring, and is believed to be as nearly perfect as possible. It has already been attended by a very marked sanitary improvement, amounting, among the enlisted men and their families, to a decrease of 60 per centum in the average number of cases of sickness.

The new water-works are already far advanced, and will be completed before the commencement of the next dry season. Hereafter, the supply of pure water will be abundant at all seasons of the year.

The walls and roof of the main building, and one wing of the new cadets' hospital, will be finished this season. This work will about exhaust the present appropriation. An estimate has been submitted of the money necessary to complete the work now so far advanced, viz, that upon the main building and one wing. It is recommended that this sum be appropriated and that the work be finished without further delay, leaving the question of building the other wing of the hospital to be decided after other improvements of more pressing necessity have been made.

The most pressing need of the Academy at this time is an addition to the cadets' barracks. Next in importance is new barracks for the cavalry detachment; and, third, some additional quarters for officers. Explanations of these several necessities have been made in my letter accompanying the annual estimates.

I respectfully invite the attention of the War Department and of Congress to this important subject, in which is involved the health and simple comfort of the cadets, the soldiers, and the young officers.

CONCLUSION.

In concluding this report, I take pleasure in expressing my high appreciation of the faithful and efficient manner in which the officers of the Academy have performed their important duties.

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

J. M. SCHOFIELD,

Major-General, U. S. A.,

Superintendent Military Academy, Commanding.

The ADJUTANT GENERAL U. S. A.,
Washington, D. C.

18.—REPORT OF COL. GEORGE W. GETTY.

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., October 18, 1879.

SIR: I have the honor to submit my annual report on the Artillery School, as follows:

In my last report it was my endeavor to show, in reference to the object which is sought in conducting the school, that it had passed its period of uncertainty, and had apparently entered upon a field of advancement and usefulness guaranteed to it through its recognition by Congress, in the shape of liberal appropriations for necessary instruments, books, material, &c., the lack of which had hitherto cramped its scope of operations.

I need scarcely say that in war, when the existence of nations is at stake, artillery, from its very nature, supplies means for obtaining great results with the smallest sacrifice of men, and probably with the greatest ease; neither have I need to draw attention to the fact that our experience has shown it to be the best promoter of steadiness in the raw troops which are likely to compose the bulk of our armies in sudden war. But I cannot refrain from saying that I am gratified at the policy which is thus shown, of placing within easy reach of our young officers of artillery the means for careful and practical investigation of the science of their arm, and I am happy to be in a position to bear witness

that such opportunities have been earnestly embraced by them in the past year.

With no intention of magnifying the importance of one arm of the service to the disparagement of the others, I deem it a duty to say furthermore, that to this country, with its military system in which a small standing army only is maintained, the preparation for and the uses in modern warfare of artillery are questions of the greatest importance, only to be met under such circumstances by thus providing for a corps of thoroughly trained officers.

In times past it may have been charged that officers, in a great measure, acquired a knowledge of the mere mechanism of drill, ignoring principles which could alone enable them to apply such knowledge advantageously, or render themselves unerringly useful in other of the multifarious functions of the artillery arm; but to-day such a charge is quite untenable, and if the great development of artillery demands corresponding accuracy and extent of knowledge, the spirit of officers is to manfully meet the requirement to the full extent of their opportunities for doing so.

In my last report I have given some account of the system of instruction pursued at the Artillery School, and it will be noted that the period embraced between that date, October 31, 1878, and the present, forms a portion of the second or closing year of the course of instruction for the present detail of officers.

The organization of the school, under the code of regulations approved April 10, 1878, was also given in the same report, but it is repeated herein because it will serve to show succinctly the different departments of instruction and the assignment of instructors, and will perhaps save reference for the purpose of clear understanding.

The list of officers at present under instruction is also given for the same reason.

[General Orders No. 12.]

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., May 7, 1878.

I. The course of instruction at the United States Artillery School will commence on Friday, the 10th instant, under the provisions of the code of regulations approved April 10, 1878.

(a) Lieut. Col. Emory Upton, Fourth Artillery, is assigned as "Superintendent of studies in mathematics, engineering, military art and science, &c., law and military administration, applied tactics, infantry and grand tactics; also of practice in the same."

(b) Maj. J. C. Tidball, Second Artillery, is assigned as "Superintendent of studies and practice in artillery and artillery tactics."

(c) The following-named officers are designated instructors by the staff of the school under paragraph 2, p. 7 (Code):

Capt. Richard Lodor, Fourth Artillery, department of artillery.

Capt. Lorenzo Lorain, Third Artillery, department of engineering.

Capt. S. S. Elder, First Artillery, department of law and military administration.

Capt. John H. Calef, Second Artillery, department of military art and science, military history, and geography.

(d) Captains Lodor, Fourth Artillery, and Lorain, Third Artillery, are also designated as instructors in mathematics whenever it may be found necessary to form special classes of officers for that branch of study (vide paragraph 9, p. 8 (Code). These officers will alternate in giving this instruction, at the discretion of the superintendent.

(e) Capt. W. F. Randolph, Fifth Artillery, and John H. Calef, Second Artillery, are designated instructors in tactics.

II. Recitations shall commence at 9.30 a. m., and will be promptly attended by all officers under instruction, unless specially excused. The officer of the day will not be excused from recitations, but the officer of the guard is excused during his tour; also on the day on which he marches off guard.

III. Capt. W. E. Randolph, Fifth Artillery, is announced as signal officer and instructor in signaling. Instruction will continue as now established.

IV. On Friday of each week (except the last Friday of each month) the practical instruction will be in infantry school of the company. The last Friday of each month will be devoted to target practice with small-arms.

V. Under the provisions of paragraph 5, p. 18, School for Enlisted Men, the following assignments in this branch of the United States Artillery School are announced:

Capt. W. F. Randolph, Fifth Artillery, superintendent.
 First Lieut. L. A. Chamberlain, First Artillery, } instructors.
 Second Lieut. E. M. Cobb, Second Artillery, }

VI. All orders conflicting herewith are revoked.

By order of Colonel Getty.

CONSTANTINE CHASE,
 First Lieutenant Third Artillery, Adjutant.

For recitations the division into sections of the officers under instruction will be as follows until further orders, viz:

First section.

First Lieut. J. L. Sherman, First Artillery.
 First Lieut. E. L. Zalinski, Fifth Artillery.
 First Lieut. W. S. Muse, United States Marine Corps.
 First Lieut. George Mitchell, Second Artillery.
 First Lieut. C. W. Harrold, Third Artillery.
 First Lieut. Wells Willard, Fifth Artillery.
 First Lieut. Sebree Smith, Second Artillery.
 First Lieut. Peter Leary, jr., Fourth Artillery.
 First Lieut. C. C. Wolcott, Third Artillery.
 First Lieut. H. L. Harris, First Artillery.

Second section.

First Lieut. G. H. Paddock, Fourth Artillery.
 First Lieut. Arthur Murray, First Artillery.
 Second Lieut. L. Niles, Second Artillery.
 Second Lieut. C. H. Clark, First Artillery.
 Second Lieut. J. R. McAuliffe, Fifth Artillery.
 Second Lieut. J. M. Jones, Fourth Artillery.
 Second Lieut. E. D. Hoyle, Second Artillery.
 Second Lieut. J. C. Bush, Fifth Artillery.
 Second Lieut. L. L. Bruff, Third Artillery.
 Second Lieut. J. T. French, jr., Fourth Artillery.
 Second Lieut. C. B. Satterlee, Third Artillery.

Instruction in drawing will continue as in paragraph II, General Orders No. 25, current series, from these headquarters, at such hours approved by the superintendent of instruction as will not interfere with other duties.

I shall now speak of the operation of the school under the different departments into which it is divided.

DEPARTMENT OF ARTILLERY.

Studies and practice in this department have been pursued in accordance with the Code of Regulations, study commencing on the 15th of February, and continuing until the 1st of July, embracing gunpowder

and other military explosives, projectiles, construction of artillery, gunnery, loading, laying, and discharging artillery, kinds of fire and projectiles, determination of ranges and times of flight of projectiles, description and use of densimeter, velocimeters and chronographs, telegraphy, so far as military necessities require, and defensive torpedoes.

The method of instruction was by recitations and written thesis.

Practice in this department embraces the use of the instruments named above, the analysis of gunpowder, application of formulæ, methods of discharging artillery by means of electricity under various conditions, electric telegraphy, inspection of powder, drawing of guns, artillery machines, and plots of firing practice, and has been carried out in connection with the studies.

The appropriations by Congress heretofore spoken of gave the means for establishing a laboratory and electrical room for the use of this department. By the former it has been practicable for the first time in the history of the school to instruct officers practically in the chemistry and analysis of explosives, and the highest commendation is due to Capt. Lorenzo Lorain, Third Artillery, who, in addition to his duties as instructor in engineering, has had charge of this branch of the department of artillery. He has been ably assisted, however, by First Lieut. H. L. Harris, First Artillery, a member of the class of officers, who has performed this duty in addition to those already devolving upon him, and has fully earned thanks and distinction.

By the electrical and telegraphic room, means have been found for furnishing instruction in the application of electricity to artillery purposes, and of obtaining increased accuracy of fire, together with reports thereon. The arrangement of this room has been under the direction of Major Richard Lodor, Third Artillery, in charge of the department of artillery, to whose untiring energy and interest, in fact, the development of this entire department is due. In the electrical branch he has been assisted by First Lieut. L. A. Chamberlin, First Artillery, whose services have been found peculiarly valuable to the school in many ways.

Major Lodor's report (Appendix A) shows details of the methods pursued.

DEPARTMENT OF ENGINEERING.

Study and practice in this department have been largely combined, and the method of instruction by recitation departed from, although a certain amount of reading from the text-books has been prescribed daily, and the officers expected to be ready for a demonstration of the amount of knowledge they possess, either practically or by recitation. The study in this department embraces field fortification, elements of permanent fortification, field engineering, military bridges, topography and reconnaissance, military drawing and photography as applied to military requirements.

The time devoted to engineering is from September 1 to December 1 of the first year of the course; consequently, instruction was progressing at the date of my last report, and consisted mainly in the practical solution, on the ground, of the various problems in surveying that can be solved without instruments; the adjustments and use of the theodolite, transit, Y and hand levels, plane tables, surveyors' and pocket compasses, telemeters, and sextant; the determination of the true meridian and variation of the needle by means of transit observations on Polaris; the laying out of field works, profiling and defilement of works, and topographical drawing.

For the purpose of carrying out practical instruction in reconnaissance and military sketching, the officers under instruction were sent to camp under the following order:

[General Orders No. 42.]

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., November 4, 1878.

I. The officers under instruction will proceed on a reconnaissance of the Peninsula, under direction of Capt. Lorenzo Lorain, Third Artillery, instructor in engineering, on Tuesday, the 5th instant.

II. The officers thus designated will report to Captain Lorain at the school building, at 8 a. m., 5th instant, prepared for an absence of ten days from that date.

III. Assist. Surg. Henry McElderry, First Lieut. L. A. Chamberlin, First Artillery, and a detachment of enlisted men to be hereafter designated, are attached to this party and will report accordingly.

IV. Battery commanders will furnish the necessary camp equipage for the use of these officers upon their application therefor; and the commanding officer of Battery A, Third Artillery, will furnish, in addition, the necessary camp equipage for enlisted men.

V. The post quartermaster will furnish the necessary transportation, and all baggage will be ready to be turned over to him by 3 p. m. to-day.

By order of Colonel Getty:

CONSTANTINE CHASE,
First Lieutenant, Third Artillery, Adjutant.

The reconnaissance was made mounted, commencing at Yorktown, Va., on the York River, and at the mouth of Warwick River on the James, and taken to the mouth of the Pamunkey River on the York River side; and on the other side to Winder Shades on the Chickahominy, about 14 miles from its mouth; thence to New Kent Court-House, and thence to the mouth of the Pamunkey. The result of this work is now being compiled by members of the class of officers. Practical instruction in photography was given in June.

The report of Capt. Lorenzo Lorain, Third Artillery, instructor in engineering (Appendix B), will supply the details regarding this department.

In the department of law and military administration studies were pursued in strict conformity with the Code of Regulations, the method of instruction being by recitations exclusively.

The time allotted to the law course is from September 1 to November 1; consequently the officers under instruction are now engaged in this branch. The course embraces military law and courts-martial, international law, and the laws of war, constitutional law, and the Constitution of the United States, the regulations and customs of the service of the United States, and the official papers, correspondence, orders, and records incident to its administration. The latter portion of this course was passed and reported upon last year. This department is under the able and thorough management of Capt. S. S. Elder, First Artillery (a member of the bar), and his report is contained in Appendix C. Review of the course, previous to final examination, takes place in December.

The department of military art and science, military history and geography, is under the immediate charge of Capt. J. H. Calef, Second Artillery, whose report is contained in Appendix D. The time allotted to this course was from December 1 to February 15, and embraces general history and all military operations connected with handling armies in campaign. The method of instruction is by recitations from the text-books, supplemented by lectures. The latter have been supplied by Lieut. Col. Upton, Fourth Artillery, superintendent, and Captain Calef, instructor, bearing mainly upon our own operations during the war of the rebellion, and illustrating the great principles of warfare.

The officers under instruction are now engaged upon written essays, required in this department, and the following is a list of the subjects:

1. Studies in ancient and modern tactics.
2. Campaign of Shiloh, and the strategical and tactical deductions therefrom.
3. Chancellorsville campaign, and the strategical and tactical deductions therefrom.
4. Greene's campaigns in the Carolinas, and the strategical and tactical deductions therefrom.
5. Gettysburg campaign, and the strategical and tactical deductions therefrom.
6. Strategical and tactical discussion of the operations for opening the Mississippi Valley.
7. Strategical and tactical discussion of the Antietam campaign.
8. Strategical and tactical discussion of the Wilderness campaign.
9. The use and influence of the telegraph and railroads in modern warfare.
10. Strategical and tactical deductions from the operations of the Army of Potomac from its organization to end of the Peninsula campaign.
11. War of 1812 and causes for its protraction.
12. Organization, development, and use of cavalry in American civil war.
13. Extent and value of the co-operation of the Navy during the late war.
14. Strategical and tactical deductions from the second Bull Run campaign.
15. Organization and recruitment of the armies of the Revolution and their influence on the conduct of the war.
16. Review of the battles of Marlborough.
17. Review of the battles of Frederick the Great.
18. The Eckmuhl campaign, and the strategical and tactical deductions therefrom.
19. The seven weeks' war between Prussia and Austria, and deductions therefrom.
20. Hood's campaign in rear of Sherman's Army, including battle of Nashville, and the strategical and tactical deductions therefrom.
21. Bragg's campaign in Kentucky and Tennessee in 1862, and the strategical and tactical deductions therefrom.

These essays are to be read by the officers during the coming winter. This course of instruction has been followed in strict conformity with the Code of Regulations. The final review will take place in January.

Practical instruction in artillery (drill, &c., &c.) has been carried out under the immediate supervision of Maj. J. C. Tidball, Second Artillery, whose report is shown in Appendix E.

This course continues daily—Fridays, Saturdays, and Sundays excepted—and includes the handling of all the different pieces of artillery, machines, &c., &c., together with firing practice.

This year, as indicated in that portion of this paper under the Department of Artillery, the experimental firing has been attended with surprising accuracy of observation, owing to the increased facilities now at command. No incident of a projectile's flight is lost sight of from the time it is taken from the packing-boxes or storeroom until it finally rests after discharge from the piece. This is due to the agency of electricity.

The system which is employed is given in Appendix A, and the

officers have evinced care and zeal in every direction of this important branch of instruction.

Infantry instruction has been conducted under the immediate direction of Lieutenant Colonel Upton, Fourth Artillery, superintendent. His report is given in Appendix F.

This instruction is given on Friday of each week, and consists of drills in schools of the company, battalion, skirmishing, and applied tactics. In the latter the battalion is divided into parts, which operate against each other on any ground, illustrative of attack and defense.

Battalion drill has also been carefully conducted with a view to thorough instruction.

The following order will indicate the method :

[General Orders No. 10.]

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., April 8, 1879.

Commencing Friday, 11th instant, and until further orders, infantry instruction will be in the school of the battalion.

Each officer under instruction will command the battalion during two successive drills, and will also serve twice in succession in the capacities of lieutenant-colonel, major, adjutant, and captain in each company.

For these duties officers will be detailed in rotation, and the excess of the number requisite for the battalion will not be required to attend these drills.

By order of Colonel Getty :

CONSTANTINE CHASE,
First Lieutenant, Third Artillery, Adjutant.

Considerably more time and attention this year has been devoted to practice with small-arms than heretofore, and the following order will show the system pursued, which is essentially the Hythe, or English, system, modified to suit our service :

[General Orders No. 6.]

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., March 10, 1879.

I. The following rules governing target practice with small-arms will be carefully observed until further orders :

TARGETS.

Are to be furnished by the Quartermaster's Department. They are to be made from pieces of light wood $1\frac{1}{4}$ ' to $1\frac{1}{2}$ ' thick by 4' to 6' wide, forming the frame, and covered first with canvas and afterward with paper pasted over it, as may become necessary.

Targets for individual firing are of three classes. They are of the following dimensions, and will be marked on their face into the following divisions by black circles $\frac{1}{2}$ an inch wide, viz :

Third class, to be used at all distances up to and including 300 yards.—Target 6 × 4 feet.

- Bull's eye, circular, 8 inches in diameter, black.
- Center, circular, 26 inches in diameter, white.
- Inner, circular, 46 inches in diameter, white.
- Outer, rectangular—the remainder of the target.

Second class, to be used at all distances over 300 yards to and including 600 yards.—Target 6 × 6 feet.

- Bull's eye, circular, 22 inches in diameter, black.
- Center, circular, 38 inches in diameter, white.
- Inner, circular, 54 inches in diameter, white.
- Outer, square—the remainder of the target.

First class, to be used at all distances over 600 yards.—Target 6 × 12 feet.

- Bull's eye, circular, 36 inches in diameter, black.
- Center, circular, 54 inches in diameter, white.
- Inner, square, 6 × 6 feet, white.
- Outer, 6 × 3 feet, on each end of the target, white.

MARKING, SCORING, AND SIGNALING.

Bull's eye counts 5; signal, white circular disk.
 Center counts 4; signal, red circular disk.
 Inner counts 3; signal, white and black disk.
 Outer counts 2; signal, black disk.

Ricochet, scored R; signal, red flag waved twice right and left in front of target. Ricochet hits will be marked out after the flag signal.

The danger signal is a large red flag. No firing will occur while this signal is hoisted. For the signal cease firing, see p. 422, Infantry Tactics. Whenever this signal is sounded, it will be answered from the marking-butt by hoisting the danger flag.

No man will leave the marking-butt for any purpose until "Cease firing" is sounded or the danger flag is raised.

Shots which touch the bull's eye count as such; but it must be an actual touch of the bullet, not a tear of the target beyond the limit of the bullet-hole. The same rule holds for other divisions of the target. For example, a shot in the line between center and inner counts as center.

A non-commissioned officer is to be put in charge of the marking-butts during practice.

RIFLES.

In regular practice the regulation rifle is to be altered in no way without authority. The minimum pull of trigger should be six pounds and the sights strictly according to pattern as issued. Filing any of the sights or using them differently than as originally intended is prohibited.

Sights may be blackened, but not whitened or colored. Any pad or shoe for the heel of the butt is disallowed.

POSITION.

At all distances up to and including 300 yards the position will be standing, the body and rifle being kept entirely free from artificial rest or support, the left elbow entirely clear of the body or hips, and the left hand at least six inches in front of the trigger-guard. In excess of 300 yards, any position that can be taken on level ground without artificial rest or support may be permitted, care being taken that no part of the rifle touches the ground or anything but the person of the shooter, and that his head is toward the target.

PRACTICE.

Will be by battery, and will be supervised by an officer to be designated by each battery commander.

Practice is divided into firing singly and skirmishing.

FIRING SINGLY.

First period.

In this period men will fire at every fifty yards, from 150 to 300 yards.

When the battery has performed this period, the points obtained individually at the several distances are to be added together, and the sum entered in the record in the column of "total points" of the period, to show the value of the performances of each man, but no classification is to be made of the men at the end of this period.

Second period.

The men are to practice individually at 400, 450, 500 and 600 yards.

At the conclusion of this period the points obtained by each man at the several distances are to be added together and the sum entered in the columns of "total points," from which, as well as from the total points obtained in the first period, a classification is to be made, when those men who have obtained 50 and 40 per centum of a possible maximum in the first and second periods respectively are to be formed into a first class; those who obtained 50 per centum in the first period but failed to obtain 40 per centum in the second will practice again in the second class or period, and those who failed to obtain 50 per centum in the first period will practice again in the third class or first period.

The names of the men who have passed into the higher classes and the number of points they each have obtained, are to be reported to these headquarters, posted in the barrack-room, and read to the battery before commencing the third period.

Third period.

In this period the men will practice in the three classes, viz, first, second, and third. At the conclusion of the practices in this period the points obtained by each man are to be added together and the sum entered in the column of "total points," from which a final classification is to be made, when those men who obtain 50 and 40 per centum of a possible maximum in the third and second classes in this period, provided the former had previously made 40 per centum in the second period, will pass into the first class; those who obtain 50 per centum in the third class, but failed to obtain 40 per centum in the second period, will pass into the second class; and those who fail to obtain 50 per centum, although they obtained 40 per centum in the second period, will remain in the third class.

The first class will practice at 650, 700, 750, and 800 yards.

Men shooting in the first class, who obtain 30 per centum of a possible maximum and upwards, are to be styled marksmen.

In individual firing the men will fire 5 rounds per man at each distance.

Battery commanders will report completion of this practice.

SKIRMISHING.

Ten rounds per man are to be fired by each battery in skirmishing order as laid down in tactics, advancing from 400 to 200 yards, and retiring from 200 to 400 yards, until the ammunition is expended, each man judging his own distance and arranging the sights.

Six or eight single targets (6' x 2') are to be placed at intervals of five yards between them for this practice. Each target is to have a black mark two feet deep across the center; fair hits and ricochets found on the target are to be counted 2 points. Every file is to have its own target.

The men may fire in any position, but must not load until they are in position with their front clear, whether advancing or retiring.

A sentinel is to be placed at each flank of the line of targets at proper distances therefrom, to prevent any person approaching within the line of fire. Before commencement of the practice the officer will ascertain that the names entered in the list are those of the men composing the squad, and at the conclusion of the firing the officer is to go to the targets and record the hits. The points obtained by each squad are to be inserted in the columns set apart in the record book for this purpose.

Skirmishing practice is not to be executed until after the completion of the individual firing.

II. Practice will take place in each week, until further orders, as follows:

Lodor's battery, I, Fourth Artillery.....	Mondays,
Lorain's battery, A, Third Artillery.....	Tuesdays,
Elder's battery, G, First Artillery.....	Wednesdays,
Randolph's battery, C, Fifth Artillery.....	Thursdays,
Calef's battery, K, Second Artillery.....	Fridays,

at 1 o'clock p. m., but will in no case be allowed to interfere with the regular drills. Unless specially authorized, firing at other hours is prohibited.

III. A register of target practice showing the name of each man and the points in the various practices obtained by him will be kept in each battery. Should any man fail to fire, the cause will also be stated.

IV. Officers are expected to pass through the various periods of individual firing, and their performances are to be placed upon the record in an appropriate place.

V. Returns for transmission away from the post will be rendered as called for in General Order No. 95, of 1877, Headquarters Army. All reports and returns will be rendered through Lieutenant-Colonel Upton, Fourth Artillery, superintendent of infantry instruction.

By order of Colonel Getty.

CONSTANTINE CHASE,

First Lieutenant Third Artillery, Adjutant.

The result of this practice has been that the Artillery School had two representatives (enlisted men) on the team from the Military Division of the Atlantic at the recent meeting at Creedmoor.

Instruction in signaling and telegraphy has been conducted by Capt. W. F. Randolph, Fifth Artillery, signal-officer, from July 14 to September 1, daily, except Saturdays and Sundays. It embraced the Myer code of Army Signals, both by the use of flags and instruments, and the Morse telegraphic code.

Instruction in the Army Signal Code for non-commissioned officers is now progressing. This branch of instruction has been satisfactorily carried out.

SCHOOL FOR ENLISTED MEN.

This branch of the Artillery School was described in my last report. It is under the supervision of Capt. W. F. Randolph, Fifth Artillery, whose report is shown in Appendix G. He is assisted by First Lieut. L. A. Chamberlain, First Artillery, and First Lieut. E. M. Cobb, Second Artillery, instructors, and the course of instruction embraces the time between October and May of each year.

The class attending the last term of this school consisted of 60 men—7 corporals and 53 privates—and the men have generally given evidence of zeal and willingness to learn.

The course has been carried out very nearly in conformity with the Code of Regulations, and the following order shows the result of the final examination. Many of the men who had entered with the class were necessarily placed in the primary sections for instruction in the rudiments of learning. They were therefore not examined in the regular course:

[General Orders No. 14.]

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., May 8, 1879.

The following is the standing of the enlisted men under instruction, as determined by the staff of the United States Artillery School, at the examination of April, 1879:

Names.	Artillery and tactics.	Mathematics.	Geography.	History.	Writing.	General merit.
Private E. S. Blaine, Battery A, Third Artillery	1	3	1	1	1	1
Private H. K. W. Patterson, Battery K, Second Artillery	2	1	2	2	2	2
Private B. W. Walker, Battery K, Second Artillery	3	2	4	4	31	3
Private W. M. Ganage, Battery G, First Artillery	5	11	5	5	8	4
Private B. Woodson, Battery A, Third Artillery	4	5	3	3	32	5
Private J. C. Daley, Battery G, First Artillery	6	4	6	6	16	6
Private A. Eskite, Battery C, Fifth Artillery	7	7	8	8	10	7
Corporal A. Boman, Battery A, Third Artillery	8	8	7	7	20	8
Private G. Howaldt, Battery I, Fourth Artillery	14	6	14	15	3	9
Private J. A. Pearson, Battery C, Fifth Artillery	11	9	11	11	13	10
Corporal Frederick Dittus, Battery K, Second Artillery	9	10	9	9	28	11
Corporal M. Shanahan, Battery G, First Artillery	10	12	15	10	29	12
Private William Ford, Battery K, Second Artillery	12	15	10	14	18	13
Private J. W. Wichter, Battery G, First Artillery	13	14	16	12	14	14
Private G. M. Woods, Battery A, Third Artillery	22	18	19	20	11	15
Private W. J. Cummins, Battery I, Fourth Artillery	21	20	22	21	7	16
Private J. H. Kiffmeyer, Battery A, Third Artillery	19	23	23	22	5	17
Private J. Ryan, Battery C, Fifth Artillery	16	17	24	18	25	18
Private Charles Glover, Battery C, Fifth Artillery	26	16	17	16	26	19
Private D. Schull, Battery K, Second Artillery	18	22	18	17	30	20
Private Edward Mehen, Battery A, Third Artillery	25	25	20	19	17	21
Corporal Charles Mossey, Battery I, Fourth Artillery	27	19	30	27	6	22
Private Joseph Archer, Battery A, Fifth Artillery	23	21	21	26	19	23
Private Thomas Wood, Battery G, First Artillery	20	28	29	25	9	24
Corporal L. Martini, Battery C, Fifth Artillery	17	27	20	23	22	25
Corporal Frederick Kimball, Battery A, Third Artillery	15	24	25	29	23	26
Private John Lynch, Battery G, First Artillery	24	26	28	24	27	27
Private W. Mayne, Battery A, Third Artillery	Def.	13	12	Def.	15	Def.
Private C. H. English, Battery A, Third Artillery	Def.	Def.	13	13	4	Def.
Corporal W. McConley, Battery I, Fourth Artillery	Def.	Def.	Def.	Def.	24	Def.
Private E. Tomlinson, Battery K, Second Artillery	Def.	Def.	27	28	12	Def.
Private W. H. Long, Battery G, First Artillery	Def.	Def.	Def.	Def.	21	Def.

By order of Colonel Getty.

CONSTANTINE CHASE,
First Lieutenant Third Artillery, Adjutant.

The school for enlisted men was opened for the present term under the following order, and is now in fair progress, viz :

[General Orders No. 28.]

HEADQUARTERS UNITED STATES ARTILLERY SCHOOL,
Fort Monroe, Va., September 5, 1879.

The course of studies for enlisted men (*vide* Code of Regulation, United States Artillery School, 1878, pp. 18 and 19) will commence on Monday, September 15, 1879.

(a) Enlisted men attending the school will be arranged by the superintendent into as many sections in each subject as circumstances render practicable or convenient.

(b) Recitations will be held on Mondays, Tuesdays, Wednesdays, and Thursdays, between the hours of 9.30 o'clock a. m. and 12 o'clock m., at the new school-house.

(c) Enlisted men under instruction will attend all recitations, except when under the following circumstances, viz :

When on sick report ;

When on guard ;

When under the relief therefrom by the commanding officer, to be given only in cases of peculiar urgency.

(d) Enlisted men under instruction will attend recitations on the day on which they march off guard ; they will be relieved from guard for this purpose at 7 o'clock a. m. on recitation days. When on the general police these men will report for that duty at 1 o'clock p. m. on the same days (*vide* b.).

(e) Weekly reports of recitations will be rendered, through the superintendent, on Friday mornings.

By order of Colonel Getty.

CONSTANTINE CHASE,
First Lieutenant Third Artillery, Adjutant.

The present class numbers 41 men.

I have now sketched the prominent features of the conduct of the Artillery School during the past year, but I am unable to supplement the report by a detailed account of the results, because the time has not arrived for the final examinations. Still, I feel warranted in saying that the school is in a progressive and harmonious condition never before reached in its history, and that the officers upon whom the management of its various branches devolves are working with a zeal which only springs from the heartfelt desire to improve and be useful.

The post has within the last year been handsomely supplied with permanent barracks for the men, and credit is due to the officer of the Quartermaster's Department stationed here (Capt. L. E. Campbell, A. Q. M.) for the manner in which the work has been executed.

Regarding the wants of the Artillery School, I have the honor to renew my recommendation of last year, that the erection of a permanent fire-proof building for the library be considered at once, for I believe that the desire exists in no quarter that valuable books should be unnecessarily exposed to damage or destruction.

Concerning the conduct of the school, I have the honor to state that assistant instructors in each of the departments of artillery, engineering, law, and military administration, military art and science, military history and geography, are greatly needed to relieve the strain of constant application upon the officers now acting as instructors, and to provide for cases of sickness among them, so that the course shall not be interrupted.

I deem it a duty again to invite attention to the importance of providing proper instruction in the practical handling of torpedoes. This subject has been touched upon in the school, but the lack of proper material almost precludes progress in the matter of practice. Torpedoes have, however, been contrived and fired, vaguely illustrative of their effect, but it is highly desirable that those of accepted utility be furnished from Willetts Point or elsewhere for this branch of instruction.

I need scarcely say that the handling of this means of defense is sure to devolve upon artillery in time of war, and that there appears no reason why that arm should not be made familiar with this species of warfare in time of peace, especially as it is no secret.

I have the honor to be, sir, very respectfully, your obedient servant,
GEO. W. GETTY,

Colonel Third Artillery, Bvt. Maj. General, U. S. A., Commanding.

The ADJUTANT-GENERAL, U. S. A.,
Washington, D. C.

REPORT OF THE JUDGE-ADVOCATE-GENERAL.

REPORT

OF

THE JUDGE-ADVOCATE-GENERAL.

WAR DEPARTMENT,
BUREAU OF MILITARY JUSTICE,
October 8, 1879.

SIR: In compliance with circular of the 6th ultimo, I have the honor to furnish the following report of the business of this Bureau for the year between October 1, 1878, and October 1, 1879:

Number of general court-martial records received, reviewed, and registered...	1,673
Number of reports made and opinions furnished upon court-martial proceedings, applications for remission of sentence, &c., and upon the miscellaneous questions of law referred to the Judge-Advocate-General for opinion by the Secretary of War.....	898
Number of official applications from the War and Treasury Departments for abstracts of proceedings of trials, &c., answered.....	1,087
Copies of records furnished under the 114th Article of War, &c., pages.....	10,558

The following schedule, which is similar to the one presented in my last annual report, exhibits the number of convictions in the Army of the offenses indicated, as shown by the records of general courts-martial received at the Bureau during the past year:

For absence without leave.....	289
For advising soldier to desert.....	1
For allowing prisoner to escape.....	6
For assault and battery.....	72
For assault with intent to kill.....	10
For breach of arrest.....	8
For desertion.....	378
For disobedience of orders.....	100
For disrespect to superior officer.....	29
For drunkenness.....	138
For drunkenness on duty.....	201
For embezzlement, &c.....	10
For failure to attend drill, roll-call, &c.....	81
For larceny.....	117
For mutiny and mutinous conduct.....	8
For neglect of duty.....	49
For presenting fraudulent claim.....	2
For offering violence to superior officer.....	9
For quitting guard or post as sentinel.....	107
For quitting platoon or division without leave.....	7
For selling, losing, or wasting government property.....	96
For sleeping on post.....	64
For "conduct unbecoming an officer and a gentleman" (not included under previous heads).....	10
For disorders, &c., charged as "conduct prejudicial to good order and military discipline" (not included under previous heads).....	462
For miscellaneous (not included under any previous head).....	41

By comparing this list with that contained in my last year's report, it will be perceived that the cases of convictions of desertion are increased by twenty-four. My examinations of the records of trials induce the

belief that the principal or most conspicuous causes of desertion in the Army are: 1, drunkenness, or rather indulgence in intoxicating liquors; 2, oppressive or injudicious treatment of soldiers by non-commissioned officers, and especially first sergeants, of companies, invested with an excess of authority. If, on the one hand, no enlistments were made except of men known to be of confirmed habits of sobriety and assured moral character, and, on the other hand, the wants and interests of soldiers were uniformly investigated and attended to by their company officers *in person*, the men being authorized and encouraged to have recourse *directly* to their officers whenever aggrieved or needing advice, and the non-commissioned officers precluded from exercising any form of arbitrary power over their inferiors, the number of desertions in the Army would, I am confident, be very considerably diminished. And in this connection I would express my concurrence in the views of Major-General McDowell on the subject of the causes and cures of desertion, set forth in General Order No. 3, issued from the headquarters of his Division, dated June 23 last.

I take pleasure in bearing testimony to the constant and valuable work accomplished by my Assistants, as well as by the clerks and other persons employed at the Bureau, during the year.

The officers of the corps of Judge-Advocates not on duty at the Bureau have performed their varied and important duties with their usual efficiency, so far as is known to me. Reports of judge-advocates (and acting judge-advocates) of military departments, so far as received, are herewith inclosed for such reference as may be desired, and as illustrating the character of the services required of these officers. It is much to be regretted that this class of officers cannot be furnished in all cases with suitable libraries of legal works of reference, to be kept at the department headquarters. Frequently called upon as they are, in the course of their duties, to examine the statute law and rulings of the courts of the States and Territories included in their departments, to advise upon questions of law arising in the administration of the department commands, to prepare military charges and conduct military prosecutions, as well as occasionally to assist in the preparation of cases for trial or in the defenses to be made by officers sued or prosecuted in the civil tribunals, these Judge-Advocates should, it is deemed manifest, be furnished with a selection of legal treatises, reports, and statutes for reference and study; and to deny or unreasonably restrict them in this respect, is both unjust to themselves as skilled and faithful officials and prejudicial to the interests of the military service. Such a course may also induce an unnecessary public expense in the retaining and paying of lawyers in cases where the services required might be as well performed by the judge-advocates were they supplied with the necessary tools of their profession. In view of these considerations, applications for an appropriation for the purchase of law libraries for department headquarters have been repeatedly made by me and approved by the Secretary of War, but have not been favored by Congress. The very small contingent fund at present allowed to the Bureau, \$250, even if legally applicable, would not be sufficient for this purpose; indeed, the same does not suffice to provide the Bureau with the proper books for its own use, since from this fund it must also supply itself with the stationery and furniture, and meet the various incidental expenses, required for the office in Washington. Permit me to ask that the advisableness of supplying the headquarters of military departments with the libraries indicated may be brought to the consideration of Congress.

In connection with this report I desire again to call the attention of the

Secretary of War to the amendment of the one hundred and third article of war, which has heretofore passed the Senate, but has failed to go through the House of Representatives (though favorably reported by its Military Committee), and the adoption of which, as settling a protracted controversy, is, in my judgment, imperatively called for.

The amended article, as accepted and passed by the Senate, is as follows:

A BILL to amend the one hundred and third article of war.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the one hundred and third of the rules and articles of war be, and the same hereby is, amended so as to read as follows:

ARTICLE 103. No person shall be tried or punished by a court-martial for any offense committed more than two years, or in a case of desertion three years, before the arraignment of such person for such offense, unless he may meanwhile have absented himself from the United States, in which case the time of his absence shall be excluded in computing the period of the limitation.

I scarcely need again remind the Honorable Secretary of the singular anomaly dwelt upon by me in former reports, that while the prosecution of all other military crimes is admitted to be limited by the existing article to the period of two years therein prescribed, the crime of desertion has been heretofore held and treated by the majority of commanders in the Army to be practically unaffected by the limitation, so that a deserter may be brought to trial at any time after his offense, or, in other words, remain liable to arrest and punishment to the end of his life. Thus, under this doctrine and practice, a soldier of the war of 1812, who may have deserted and be still alive, may at any moment be apprehended, tried by court-martial, and sentenced to a term of imprisonment, though by an exemplary and valuable life of more than half a century he may have atoned over and over for the dereliction of his youth. In other words, he remains under a liability from which a soldier guilty of mutiny or cowardice in battle, or a civilian guilty of manslaughter, robbery, rape, arson, or high treason, is exempt under the existing law of the land. "Statutes of limitation," as observed by the United States Supreme Court, "rest upon sound policy, and tend to the peace and welfare of society." Wharton remarks of them that they are "acts of amnesty and grace, to be liberally construed in favor of the defendant," and at the same time "checks imposed by the State itself to exact vigilant activity upon its subalterns." They are indeed found in all modern codes as the expression not merely of an enlightened humanity but of sound sense and practical policy; and for our *military* laws to exclude from their application any particular class of offenders against military discipline would seem to be unworthy the dignity of the government, as well as prejudicial to the interests of the military service in inducing a lack of promptness and energy in the arrest and punishment of guilty persons. It is well known to the Secretary of War that it has always been held by the Judge-Advocate-General, (my predecessor in office, as well as myself,) that the existing military statute of limitations—the article of war above mentioned—is a *general* statute applying to desertion in the same manner and to the same extent as to all other military offenses, and that the same conclusion has been held and expressed by the honorable Attorney-General in three successive official opinions, and indeed publicly approved and adopted by the Secretary of War in a General Order (No. 68) issued from the War Department in 1874. I do not propose, however, to contest here the opposite doctrine above referred to, but, in view of the fact that the same has been repeatedly pronounced against by the highest legal adviser of the government, and of the fact that, while the construction of the Article remains thus in conflict, the due administra-

tion of military law must be constantly embarrassed, and injustice and oppression be not unfrequently wrought in individual cases, I desire simply to urge that the grave existing complication and difficulty be fully and finally removed by legislation such as that already initiated. In his annual report of November 19, 1877, the present Secretary of War approved such legislation and recommended its adoption by Congress. It is earnestly desired that this recommendation may be repeated. At present, indeed, when parties are brought to trial for desertions committed many years before, and sentenced, the President, upon the recommendation of the Judge-Advocate-General, in the majority of cases intervenes, through the Secretary of War, and, by the exercise of the pardoning power, sets free the prisoner. But this fact, which forcibly illustrates the injustice and impolicy of such trials, shows also that the existing law or practice is most faulty in permitting the same to be had at all.

I desire further to reiterate here my conviction that the adoption of an article of war making *gambling* a punishable offense in the Army, as it has long been in the Navy, would subserve the best interests of the military service. A bill, framed for the purpose, was agreed upon and reported by the Senate Committee on Military Affairs in April, 1878, but was not finally acted upon. This bill is clear and comprehensive in its terms, and, if passed and duly executed, would, it is believed, effectually suppress a practice which, while it demoralizes the service wherever permitted and gravely prejudices its good order and discipline, puts in jeopardy the means of support of families, and is thus an unqualified public evil.

I would lastly ask the attention of the Secretary of War to two defects in the existing articles of war, which, though heretofore brought to the consideration of Congress, remain as yet without correction. One of these is the employment in Article 72 of the word "general" before "officers," in prescribing by what officers the superior courts-martial may be convened. By the use of this word the article incapacitates any officer below the rank of general—a colonel, for example—who is in command of a military department, from ordering such a court. It is my opinion that *all* department commanders, of whatever rank, should be invested with the same authority in this particular, and accordingly that the word "general" in the first line of the article should be struck out by legislation. The provision, as it now stands, has in several instances caused very considerable embarrassment in the administration of military justice. The other defect had in view is in the framing of the present one hundred and fourth article, which in terms precludes the execution of a sentence of court-martial except where the "whole proceedings" of the same have been approved by the reviewing officer. This term has been construed in practice to mean the material proceedings, *i. e.*, the proceedings material to the legal validity of the sentence or punishment approved. The Article, however, as worded, is likely to mislead, and should properly be modified. A bill amending it was, indeed, reported by the Senate Military Committee in 1878, but no further action appears to have been taken.

Respectfully submitted.

W. M. DUNN,
Judge-Advocate-General.

Hon. GEO. W. McCRARY,
Secretary of War.

HEADQUARTERS DEPARTMENT OF THE PLATTE,
JUDGE-ADVOCATE'S OFFICE,
Fort Omaha, Nebr., September 10, 1879.

GENERAL: In obedience to instructions contained in circular received September 9, 1879, I have the honor to transmit report of the operations of this department since my last annual report, dated August 20, 1878.

From the 1st day of August, 1878, up to the 31st day of July, 1879, 253 sets of charges have been received, which have been revised, approved, amended, referred, and returned or otherwise disposed of.

Of that number 227 were referred for trial to appropriate courts, 23 were returned for trial by inferior courts, withdrawn, disapproved, &c.

Two hundred and four have been tried, 6 were returned untried, the accused having escaped; 5 were returned untried, the accused having been discharged; 3 withdrawn; 1 transferred; 1 on file, and 7 pending.

The offenses tried, included 26 charges of desertion, 19 of desertion connected with other grave offenses, and 15 for theft. The remainder were of the usual character of military crimes.

Two hundred and thirteen records of trials by general courts-martial have been received, examined, and the decision and orders of the commanding general indorsed thereon. Of this number 15 were inclosed with advice and returned for amendment, reconsideration, and further procedure.

Seventy-five general court-martial orders (No. 54, current series, inclusive,) have been prepared, revised, corrected, and published, and 212 records have been forwarded to the Bureau of Military Justice, War Department.

One thousand three hundred and seventy-one records of garrison courts-martial have been received, revised, and filed in this office, as required by General Orders No. 28, War Department, Adjutant-General's Office, series of 1877.

Total number of cases tried in this department, since last annual report, 1,575.

In the transaction of the foregoing matters, 288 letters have been sent, and 336 indorsements have been written and transmitted. Three hundred and thirty-three letters have been received and given due attention.

It is deemed proper to remark that the administration of military justice in this department during the past year has been generally satisfactory.

Causes have been promptly tried, and the proceedings revised and promulgated without delay. The various matters submitted to this office for examination and advice have received early attention, and it is believed have been approved.

The want of a suitable supply of standard books of reference, however, is severely felt, and this difficulty is aggravated by the removal of headquarters to this fort, it thus becoming more inconvenient and difficult to obtain access to the authorities contained in private libraries in the city.

I therefore again beg leave to ask the attention of the commanding general of department to this matter, in order that it may reach the attention of superior authority, and an effort be made to induce the enactment of legislation providing a limited contingent fund for the supply of judge-advocates on duty at department headquarters with late reports of the Supreme Court of the United States, and Opinions of the Attorneys-General of the United States, as well as such other authorities as are important to the full comprehension of the laws and decisions affecting the discharge of their duties. In thus renewing the suggestions of this office made in annual reports of 1875 and 1876, it is believed to be unnecessary to restate the reasons there enumerated, or to justify the correctness of the views then expressed.

Entrusted, as judge-advocates are, with the duty of advising concerning the various important matters relating to the duties, rights, and responsibilities of all persons in the military service, not only as to their relations with the Army, but as affecting their obligations as citizens under the law of the land, it is hoped provision for the needed facilities will be again urged and the propriety of granting them be recognized.

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

H. B. BURNHAM,
Judge-Advocate, United States Army.

Brig. Gen. GEORGE CROOK,
Commanding Department of the Platte, Fort Omaha, Nebr.

HEADQUARTERS DEPARTMENT OF DAKOTA,
JUDGE-ADVOCATE'S OFFICE,
Sault Paul, Minn., September 13, 1879.

SIR: I have the honor to transmit herewith the annual report of the business of this office for the year ending August 31, 1879.

The following is a list of commissioned officers tried within this department during the period indicated:

1. Capt. James S. Casey, Fifth Infantry. Tried at Fort Keogh, Mont., by the gen-

eral court-martial appointed by Special Orders Nos. 91 and 93, series of 1878, from these headquarters, and of which Lieut. Col. J. N. G. Whistler, Fifth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 47, Headquarters of the Army, Adjutant-General's Office, of November 8, 1878. Sentenced "To be dismissed the service." Sentence remitted.

2. Capt. James T. Peale, Second Cavalry. Tried at Fort Keogh, Mont., by the general court-martial appointed by Special Orders Nos. 91 and 93, series of 1878, from these headquarters, and of which Lieut. Col. J. N. G. Whistler, Fifth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 96, of December 23, 1878, from these headquarters. Sentenced "To forfeit to the United States fifty (50) dollars per month of his pay for the period of three months, and to be suspended from rank and command, and confined to the limits of his post for the same period." Sentence disapproved.

3. Capt. John Mix, Second Cavalry. Tried at Fort Keogh, Mont., by the general court-martial appointed by Special Orders Nos. 91 and 93, series of 1878, from these headquarters, and of which Lieut. Col. J. N. G. Whistler, Fifth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 96, of December 23, 1878, from these headquarters. Sentenced "To be reprimanded by the department commander." Sentence approved.

4. Capt. George K. Sanderson, Eleventh Infantry. Tried at Fort Keogh, Mont., by the general court-martial, appointed by Special Orders Nos. 91 and 93, series of 1878, from these headquarters, and of which Col. Nelson A. Miles, Fifth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 97, of December 24, 1878, from these headquarters. Acquitted. Findings not approved.

5. Capt. E. J. Spaulding, Second Cavalry. Tried at Fort Keogh, Mont., by the general court-martial appointed by Special Orders Nos. 91 and 93, series of 1878, from these headquarters, and of which Col. Nelson A. Miles, Fifth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 97, of December 24, 1878, from these headquarters. Sentenced "To be reprimanded by the department commander." Sentence approved.

6. Capt. Thomas H. French, Seventh Cavalry. Tried at Fort Abraham Lincoln, Dakota, by the general court-martial appointed by paragraph 2, Special Orders No. 145, and Special Orders No. 154, series of 1878, from these headquarters, and of which Lieut. Col. C. C. Gilbert, Seventh Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 19, Headquarters of the Army, Adjutant-General's Office, of March 26, 1879. Sentenced "To be dismissed the service of the United States." Commuted "To suspension from rank on half-pay for one year."

7. Second Lieut. Lovell H. Jerome, Second Cavalry. Tried at Saint Paul, Minn., by the general court-martial appointed by paragraph 1, Special Orders No. 145, series of 1878, from these headquarters, and of which Lieut. Col. Pinkney Lugenbeel, First Infantry, was president. Proceedings not published. •

8. Capt. Walter Clifford, Seventh Infantry. Tried at Saint Paul, Minn., by the general court-martial appointed by paragraph 1, Special Orders No. 5, current series, from these headquarters, and of which Lieut. Col. Pinkney Lugenbeel, First Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 10, Headquarters of the Army, Adjutant-General's Office, of February 8, 1879. Sentenced "To be dismissed the service." Sentence not confirmed.

9. First Lieut. Nelson Bromson, Sixth Infantry. Tried at Fort Abraham Lincoln, Dakota, by the general court-martial appointed by paragraph 2, Special Orders No. 145, and Special Orders No. 154, series of 1878, from these headquarters, and of which Col. Samuel D. Sturgis, Seventh Cavalry, was president. Proceedings promulgated in General Court-Martial Orders No. 56, of May 26, of 1879, from these headquarters. Acquitted. Findings, except to the first and second additional charges and their specifications, approved.

10. First Lieut. David Q. Rousseau, Fifth Infantry. Tried at Fort Keogh, Mont., by the general court-martial appointed by Special Orders No. 48, current series, from these headquarters, and of which Maj. George Gibson, Fifth Infantry, was president. Proceedings not yet published.

11. Capt. E. C. Gilbreath, Eleventh Infantry. Tried at Saint Paul, Minn., by the general court-martial appointed by paragraph 2, Special Orders No. 63, paragraph 3, Special Orders No. 71, and paragraph 5, Special Orders No. 74, current series, from these headquarters, and of which Lieut. Col. Daniel Huston, jr., Sixth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 75, of July 19, 1879, from these headquarters. Acquitted. Findings approved.

12. Capt. O. B. Read, Eleventh Infantry. Tried at Saint Paul, Minn., by the general court-martial appointed by paragraph 2, Special Orders No. 63, paragraph 3, Special Orders No. 71, and paragraph 5, Special Orders No. 74, series of 1879, from these headquarters, and of which Lieut. Col. Daniel Huston, jr., Sixth Infantry, was president. Proceedings promulgated in General Court-Martial Orders No. 75, of July 19, 1879, from these headquarters. Acquitted. Findings approved.

The following is a list of number of cases of enlisted men tried by general court-martial at the several posts within the department:

Fort Snelling, Minn.	54	Fort Randall, Dak.	6
Fort Totten, Dak.	7	Fort Meade, Dak.	26
Fort Pembina, Dak.	4	Fort Shaw, Mont.	10
Fort Buford, Dak.	7	Fort Ellis, Mont.	21
Fort A. Lincoln, Dak.	51	Fort Logan, Mont.	3
Fort Stevenson, Dak.	3	Fort Missoula, Mont.	18
Fort Yates, Dak.	13	Fort Keogh, Mont.	45
Fort Bennett, Dak.	15	Fort Custer, Mont.	9
Fort Sully, Dak.	1	Fort Assiniboine, Mont.	4
Total			297

The aggregate is 297, apportioned among the different organizations as follows:

Medical Department	3	Fifth Infantry	22
First Cavalry	1	Sixth Infantry	26
Second Cavalry	47	Seventh Infantry	58
Third Cavalry	4	Eleventh Infantry	24
Fifth Cavalry	1	Seventeenth Infantry	18
Seventh Cavalry	54	Eighteenth Infantry	3
First Infantry	11	Twentieth Infantry	1
Third Infantry	23	Unassigned	1
Total			297

Of these, 269 resulted in conviction and 28 in acquittal.

The different offenses charged in the foregoing cases were as follows:

Violation of the seventeenth article of war (losing or spoiling arms)	17
Violation of the twentieth article of war (disrespect to commanding officer)	3
Violation of the twenty-first article of war (disobedience of orders)	20
Violation of the twenty-fourth article of war (quarrels and frays)	1
Violation of the thirty-first article of war (lying out of quarters)	3
Violation of the thirty-second article of war (absence without leave)	50
Violation of the thirty-third article of war (absence from parade)	11
Violation of the thirty-seventh article of war (hiring duty)	1
Violation of the thirty-eighth article of war (drunkenness on duty)	55
Violation of the thirty-ninth article of war (sleeping on post)	22
Violation of the fortieth article of war (quitting guard)	17
Violation of the forty-seventh article of war (desertion)	59
Violation of the fiftieth article of war (re-enlisting without discharge)	2
Violation of the sixtieth article of war (theft of arms, &c.)	23
Neglect of duty	11
Offenses falling within the purview of the sixty-second article of war, as conducted to the prejudice of good order and military discipline	146

Total number of enlisted men tried by general court-martial in this department during the preceding year, 224; showing an increase during the present year of 73.

Number of sentences remitted by the department commander during the past year, 39; number mitigated, 65.

The number of trials for the crime of desertion within the department during the preceding year was 45.

The following is a list of the number of cases tried by garrison and regimental courts-martial at the several posts within the department:

Fort Snelling, Minn.	192	Fort Shaw, Mont.	77
Fort Sisseton, Dak.	18	Fort Ellis, Mont.	101
Fort Totten, Dak.	55	Fort Logan, Mont.	16
Fort Pembina, Dak.	35	Fort Benton, Mont.	4
Fort Buford, Dak.	102	Fort Missoula, Mont.	100
Fort Lincoln, Dak.	156	Fort Assiniboine, Mont.	12
Fort Hale, Dak.	4	Fort Keogh, Mont.	123
Fort Stevenson, Dak.	15	Fort Custer, Mont.	43
Fort Yates, Dak.	147	Red Cloud Agency, Dak.	1
Fort Bennett, Dak.	96	In the field	19
Fort Randall, Dak.	13		
Fort Sully, Dak.	7		
Fort Meade, Dak.	266		
			1,602

The aggregate is 1,602, apportioned among the different organizations as follows:

Second Cavalry	172	Seventh Infantry	237
Third Cavalry	1	Eleventh Infantry	132
Seventh Cavalry	345	Seventeenth Infantry	204
First Infantry	106	Eighteenth Infantry	11
Third Infantry	180		
Fifth Infantry	68		1,602
Sixth Infantry	147		

The number of garrison and regimental court cases received during the preceding year was 1,256, showing an increase during the past year of 346.

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

THOMAS F. BARR,
Judge-Advocate, Department of Dakota.

The ASSISTANT ADJUTANT-GENERAL,
Department of Dakota, Saint Paul, Minn.

HEADQUARTERS DEPARTMENT OF THE MISSOURI,
JUDGE-ADVOCATE'S OFFICE,
Fort Leavenworth, Kans., October 1, 1879.

SIR: I have the honor to submit the following reports of cases tried by courts-martial in this department during the year ending September 30, 1879:

Commissioned officers tried	7
Enlisted men tried by general courts-martial	143
Enlisted men tried by inferior courts-martial	1,061

A summary of my duties during the same time is as follows: Reviewing and revising under the direction of the department commander the proceedings of courts-martial herein reported, receiving and revising charges and reporting on the propriety of bringing them to trial before courts-martial, giving my opinion upon miscellaneous questions of law when required to do so by the department commander, appearing as counsel before civil courts in causes affecting the military service when required so to do by the same authority, inspecting quarterly the military prisoners confined in State penitentiaries within the department, inspecting quarterly the accounts of disbursing-officers of the military service at this point and vicinity, and such other miscellaneous duties pertaining to the military service as have been designated by the department commander. I have also officiated as judge-advocate of the general courts-martial appointed in orders from the War Department during the year for the trial of Col. D. S. Stanley, Twenty-second Infantry, and Capt. Thomas Blair, Fifteenth Infantry.

I desire to invite attention to the suggestions contained in my last report respecting the necessity of a complete revision and amendment of the Articles of War.

Very respectfully, your obedient servant,

D. G. SWAIM,
Judge-Advocate, United States Army.

To the JUDGE ADVOCATE-GENERAL OF THE ARMY.

HEADQUARTERS DIVISION OF THE ATLANTIC,
JUDGE-ADVOCATE'S OFFICE,
Governor's Island, New York Harbor, October 12, 1879.

SIR: In compliance with your instructions of the 8th ultimo I have the honor to submit the following report of matters pertaining to my department for the year ending September 30, 1879:

Number of cases of general court-martial tried during the year	143
Commissioned officers	3
Non-commissioned officers	20
Privates	120
	143

Of the 143 cases tried by general court-martial, there were for—

Violation of twentieth article of war	1
Violation of twenty-first article of war	6
Violation of thirty-first article of war	4
Violation of thirty-second article of war (absence without leave)	22
Violation of thirty-third article of war	2
Violation of thirty-eighth article of war (drunkenness on duty)	18
Violation of thirty-ninth article of war	9
Violation of fortieth article of war	1
Violation of forty-seventh article of war (desertion)	34
Violation of sixty-second article of war, viz:	
Conduct prejudicial, &c	37
Négléct of duty	4
Larceny	5

143

Of this number, 131 were found guilty and sentenced (one of them, however, receiving a mitigation), and 12 wholly acquitted.

The following table shows, approximately, certain fractions not being considered, the average strength for the year of the several posts in the Department of the East, and the number of desertions from each :

Post.	Strength.	Desertions.	Post.	Strength.	Desertions.
Fort Wayne	119	9	Fort Adams	205	7
Fort Brady	70	12	Fort Trumbull	79	2
Fort Mackinac	67	1	Fort Hamilton	198	4
Fort Porter	75	2	Fort Wadsworth	78	2
Fort Niagara	42	1	Fort Schuyler	67	2
Fort Ontario	51	3	Fort McHenry	191	6
Madison Barracks	41	6	Fort Monroe	254	2
Plattsburg Barracks	35	1	Washington Arsenal	96	8
Fort Preble	38	1	Fort Columbus, New York Harbor ..	92	5
Fort Independence	39	1			
Fort Warren	35	2	Total	1,902	77

The number of prisoners in confinement, undergoing sentence of general and garrison courts-martial, and awaiting trial and sentence, are as follows :

Post.	Undergoing sentence general court-martial.	Awaiting trial and sentence, court's order.	Undergoing sentence garrison court-martial.	Post.	Undergoing sentence general court-martial.	Awaiting trial and sentence, court's order.	Undergoing sentence garrison court-martial.
Fort Trumbull	1	.....	.....	Fort Porter .....	.....	4	4
Fort Adams	2	7	7	Fort Wayne	1	1	1
Fort McHenry .....	.....	2	4	Fort Warren	1	.....	3
Madison Barracks	1	.....	.....	Fort Monroe	4	2	.....
Fort Independence	2	.....	.....	Fort Mackinac	1	.....	.....
Fort Ontario	2	.....	2	Fort Columbus	1	.....	.....
Washington Arsenal .....	.....	4	.....			
Fort Hamilton	1	.....	4	Total	18	20	26
Fort Brady	1	.....	1				

The number of cases of garrison courts-martial received during the year for examination and file have been 1,018.

Until the 22d of last May, my attention was so much occupied as "counsel for the government" in the investigation instituted by order of the President into the case of Fitz-John Porter, that it was with considerable difficulty the current business was attended to.

The attention of the major-general commanding the division is invited to the number of cases of penitentiary or State prison offenses disposed of by general courts-martial.

In each of these where conviction was had the felonious nature of the offenses made dishonorable discharge from the service a prerequisite.

As the status of a soldier is considered one of honor, and the law forbids the enlistment of any one who has been convicted of felony, it follows that it would be highly injudicious, where any soldier has been found guilty of such offense, to require his sentence to be executed at a military post, where he would continue to be the associate, to a greater or less extent, of those soldiers confined in the guard-house for petty military delinquencies.

The conveniences at military posts for the proper isolation of prisoners, and execution of their sentences, are so few that soldiers in confinement necessarily have to associate together.

On the other hand, the honorable Secretary of War has ruled that the "military prison" in Kansas is not intended for soldiers convicted of felony, but only for those convicted of purely military offenses, and who may after execution of sentence be returned to duty with their regiments or corps. From this it follows that soldiers convicted of felonies have to be sent to State prisons. Sometimes, however, and not infrequently, the offense is the first ever committed by the prisoner after many years' faithful and honorable service, and is not one of an aggravated nature. By sending him to the State penitentiary to associate with the most degraded felons destroys his opportunity for future usefulness, and may have the effect of making him a confirmed criminal. To obviate this, the State of New York has, within the past few years, established a State Reformatory Institution, at Elmira, New York, where offenders for first offenses may be sent in the discretion of the court, provided the punishment is not for more than five years. At this place the prisoner may, by good conduct and a system of credits, materially shorten his term of imprisonment, and be placed in a position of usefulness.

During the month of August I made a careful examination of this excellent institution, and earnestly recommend that the Secretary of War be requested to make arrangements for the incarceration there of such military offenders as may be convicted of penal offenses, in the discretion of general courts-martial, which can usually best judge from a personal knowledge of the prisoner whether such leniency will conduce to his reformation.

During the present year, under instructions of the commanding general, I prepared the necessary bill, presented it to the appropriate committees of the New York State legislature with suitable argument, and a law was enacted giving the United States jurisdiction and control over and authority to lay telegraph wires and water and gas pipes under "Buttermilk Channel," between the city of Brooklyn and Governor's Island. It is made a misdemeanor, punishable with fine and imprisonment, to interfere directly or indirectly with either.

The State of New York owns and exercises jurisdiction over all land below high-water mark on navigable streams within its boundaries.

As the United States, when it purchased Governor's, Bedloe's, Ellis's, and David's Islands, in New York Harbor, and the sites bordering thereon of Forts Hamilton, Wadsworth, and Schuyler, only obtained title to the rights of the prior owners, it follows that all the docks built by government at all these places are built on land which it neither owns nor has jurisdiction over. Offenses, therefore, committed on such docks, of a criminal nature, will be cognizable in the State courts, and under State laws; if a vessel chooses to tie up to any of such docks for commercial purposes, after tendering dockage, the local military authorities could not prevent it.

So far as Governor's Island is concerned, this is not the most serious part of it, and as I am thoroughly acquainted with the character of New York Harbor, and have received from you all the sanitary papers, this report may with propriety discuss them.

At low-water mark several acres of ground around this island are exposed to the action of the sun. Over this ground the United States authorities have no jurisdiction or control, yet are required to police it.

Bills are now in preparation by me, under the major-general's instruction (after the engineer's surveys now in progress are completed), for presentation to the legislature at its next session, in order to obtain title and jurisdiction over such lands.

A sea-wall of the most substantial character has become an absolute necessity (one which shall include this land laid bare at low tides)—

1st. For sanitary reasons.

2d. As a great and substantial improvement to the navigability of New York Harbor.

Under the *first* head it is to be noticed that the position of this island, intermediately between the great cities of New York and Brooklyn, causes all the sewerage of those cities, and largely from Jersey City and Hoboken, to be carried past its shores.

The waters of the harbor are dense with this organic matter and filth, and twice during the twenty-four hours, with the fall of the tide, is a scum deposited on the large surfaces of exposed land around this island, to dry and decompose under the action of the sun. That a pestilence, cholera or yellow fever, has not visited this

island the present year (as in years before) is due only to the extraordinary vigilance and activity of the police parties.

The number of bodies and carcases found on the shores and buried or otherwise disposed of almost exceeds belief.

Second. As to the advantage to the harbor, it is but a comparatively few years ago that Buttermilk Channel, on the eastern side of the island, was not navigable. Now, by the filling in of Water, South, Washington, and West streets, in the city of New York, the construction of the Atlantic Basin in Brooklyn, and series of wharves in each city, Buttermilk Channel has become an important navigable channel.

By the construction of a sea-wall at low-water mark the navigability of the channel will be so improved that vessels of the largest tonnage may be able to pass to Atlantic Docks and the Erie Basin, and the dangers of navigation over the rocks and shallow places be avoided. At the same time much valuable space would be obtained for the erection at a future time of suitable government warehouses and other needful structures. It is to be hoped that the honorable Secretary of War will renew his recommendation this year to Congress to appropriate sufficient money to erect and complete the sea-wall without delay.

I have not the slightest doubt that, on proper presentation of the case to the committees of Congress, from the evidences and charts which I shall be prepared to produce, an appropriation would be made by special bill, because New York Harbor is not one of mere local advantage, but for the benefit of the whole country.

During the year, I have on several occasions appeared in the State or United States courts to represent the government in *habeas corpus* and other actions in which it was interested, and in each case have to report a successful conclusion.

On two occasions, in which the major-general commanding was cited to appear, with other officers, in civil actions, on *subpœnas duces tecum*—to bring the public books and records—decisions were had; one in the New York State supreme court, and the other in the United States circuit court, sustaining the points raised on behalf of the major-general commanding, that the subpœnas were improperly issued. In the latter case, decision was only had after special argument and the presentation of an elaborate brief, but the decision from the United States circuit court is one which, if published to the division, would no doubt be of future service to some post or department commander placed in a like situation. I have not yet received a certified copy.

During the past two years but two cases had to be returned to courts for reconsideration, and in each the errors committed were inadvertent or of a clerical character. This may possibly be ascribed to the fact that in a number of instances where charges have been sent down to judge-advocates to try, I have had occasion to write to them fully in regard to the law bearing upon the particular case, and their duties in the way of amending specifications in particular instances, and the character of evidence required thereunder.

An extensive correspondence has been maintained with officers of the Army in the division and elsewhere, in answer to inquiries for information on law and practice in almost every conceivable class of cases, under military and civil law, which can arise in the service. This description of duty, being viewed as an incident of the position I sustain, although sometimes burdensome, is one which I have always felt glad to perform, where I thought I could be of service to an officer separated from suitable professional books, and anxious to be informed, so as to do his duty properly.

Very respectfully, sir, your obedient servant,

ASA BIRD GARDNER,
Judge-Advocate.

The ASSISTANT ADJUTANT-GENERAL,
Military Division of the Atlantic.

HEADQUARTERS DEPARTMENT OF THE SOUTH,
OFFICE OF JUDGE-ADVOCATE,
Newport Barracks, Ky., September 30, 1879.

SIR: I have the honor to submit the following annual report pertaining to the judge-advocate's department, from October 1, 1878, to September 30, 1879:

Commissioned officers tried by general court-martial.....	None.
Commissioned officers against whom charges have been received, but not tried, the officer resigning.....	One.

Enlisted men tried by general courts-martial.

For desertion.....	12
For drunkenness on duty.....	9
For theft.....	1
For absence without leave.....	8

For neglect of duty.....	1
For violation twenty-first article of war.....	4
For violation of thirty-ninth article of war.....	5
For violation of fifty-second article of war.....	1
For violation of sixty-second article of war.....	12
Total	53

Enlisted men tried by garrison courts-martial—minor offenses.

AT JACKSON BARRACKS, LA.

(Garrison in camp at Atlanta, Ga.)

Headquarters and 4 companies Thirteenth Infantry.....	232
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AT LITTLE ROCK AND HOT SPRINGS, ARK.

Three companies Thirteenth Infantry.....	47
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There were but two companies at Little Rock until June 10, 1879, when the garrison was increased by the transfer of one company from Baton Rouge Barracks.

AT MOUNT VERNON BARRACKS, ALA.

Two companies Thirteenth Infantry.....	16
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There was but one company at Mount Vernon until June 10, 1879, when the garrison was increased by the transfer of one company from Baton Rouge Barracks.

AT BATON ROUGE BARRACKS, LA.

Three companies Thirteenth Infantry.....	29
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This post was discontinued June 10, 1879.

AT NEWPORT BARRACKS, KY.

Detachments Thirteenth and Eighteenth Infantry, Second and Fifth Artillery, and one company Thirteenth Infantry.....	20
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The detachment Eighteenth Infantry (13 men) left post April 13, 1879; detachment Second and Fifth Artillery (13 men) left post June 2, 1879. The garrison was increased by the transfer of one company from Baton Rouge Barracks, May 31, 1879.

AT M'PHERSON BARRACKS, GA.

Headquarters and nine companies Eighteenth Infantry from September 30 to April 12.....	88
Headquarters and seven companies Fifth Artillery since April 12, 1879.....	59

There were only the headquarters and four companies Fifth Artillery at McPherson Barracks up to June 14, 1879, when the garrison was increased by the temporary transfer of three companies from Fort Barrancas.

AT CHATTANOOGA, TENN.

One company Eighteenth Infantry.....	20
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This post was discontinued April 12, 1879.

AT FORT JOHNSTON, N. C.

One company Second Artillery.....	20
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AT CHARLESTON, S. C.

Headquarters and three companies Fifth Artillery.....	54
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This post was discontinued April 21, 1879.

AT SAVANNAH, GA.

One company Fifth Artillery..... 5
 This post was discontinued April 18, 1879.

AT FORT BARRANCAS, FLA.

Three companies Fifth Artillery..... 40
 The garrison of this post was temporarily transferred to McPherson Barracks June 14, 1879.

AT KEY WEST BARRACKS, FLA.

Two companies Fifth Artillery..... 26

AT SAINT AUGUSTINE, FLA.

Two companies Fifth Artillery..... 25

Enlisted men confined at posts for minor irregularities and violations of discipline and not tried:

At Jackson Barracks.....	101
At Little Rock Barracks.....	14
At Baton Rouge Barracks.....	44
At Mount Vernon Barracks.....	3
At Newport Barracks.....	15
At McPherson Barracks, Eighteenth Infantry.....	138
At McPherson Barracks, Fifth Artillery.....	163
At Chattanooga.....	15
At Charleston.....	33
At Key West Barracks.....	25
At Saint Augustine.....	57
At Savannah.....	13
At Fort Johnston.....	45
At Fort Barrancas.....	69

It is found that 153 enlisted men were tried more than once, and some as many as six times. The following table shows the number of cases, and also the actual number of individual enlisted men (in each regiment) tried by general and garrison courts-martial.

Recapitulation by regiment.

Regiment.	Number of companies.	Number of cases tried.			Number of individual enlisted men tried.	Average strength (enlisted men).	Average percentage of enlisted men tried.	Remarks.
		General courts.	Garrison courts.	Total.				
Second Artillery.....	1	4	20	24	13	38	<i>Perc't.</i> 34 17 26 11.4 In 12 months. Do. Do. In 6 months only.	
Fifth Artillery.....	11	23	209	232	78	445		
Thirteenth Infantry.....	10	14	344	358	104	391		
Eighteenth Infantry.....	10	8	108	116	42	366		
Other organizations.....		4						
Total.....	32	49	681	730	237	1,240		

Respectfully submitted.

G. B. RUSSELL,

Captain Ninth Infantry, A. D. C., Judge-Advocate.

The JUDGE-ADVOCATE-GENERAL, U. S. A.,
 Washington, D. C.

(Through Headquarters Department of the South.)

HEADQUARTERS DEPARTMENT OF TEXAS,
JUDGE-ADVOCATE'S OFFICE,
San Antonio, Tex., September 20, 1879.

The ASSISTANT ADJUTANT-GENERAL,
Department of Texas:

SIR: Appended hereto I have the honor to submit a tabulated report of the operations of the courts-martial held within this department since the date of the last annual report of the commanding general.

Permit me to invite attention to the "Recapitulation," from which it appears that the number of cases tried by general courts-martial during the period October, 1878 to 1879, is materially less than for the preceding annual period; that the number of military convicts is little more than half; that theft and kindred crimes, heretofore frequent among colored troops, have perceptibly diminished; that the number of desertions does not diminish. Further comparisons did not prove instructive, and are therefore not made.

Very respectfully, your obedient servant,

WM. T. HOWARD,

Second Lieutenant, Second Artillery, Acting Judge-Advocate.

To JUDGE-ADVOCATE GENERAL, U. S. A.

Commissioned officers tried in the Department of Texas between October 1, 1878, and September 30, 1879.

No.	Name.	Rank.	Regiment.	Charges.	Sentence promulgated in—	Remarks.
1	King, J. H. T	Captain.....	Assistant Surgeon ..	Conduct unbecoming, &c ...	General court-martial order No. 44, Adjutant-General's Office, 1878.	Dismissed; commuted by President to three years' suspension, &c. Dismissed.
2	Cunningham, C. N. W.	Captain.....	24th Infantry	Same and drunk on duty....	General court-martial order No. 53, Adjutant-General's Office, 1878.	
3	Wessells, M. C	1st lieutenant... ..	24th Infantry	Disobedience of orders	General court-martial order No. 50, D. T., 1878.	Acquitted; acquittal disapproved by department commander. Suspension, &c., for two years.
4	Bankhead, H. C	Major	4th Cavalry.....	Habitual drunkenness	General court-martial order No. 46, D. T., 1878.	
5	Beck, W. H	1st lieutenant... ..	10th Cavalry.....	Violation of 38th, 61st, and 62d articles of war.	General court-martial order No. 34, Adjutant-General's Office, 1879.	Dismissal commuted to suspension for one year, half pay. Result of trial unknown.
6	Geddes, Andrew	Captain.....	25th Infantry	Violation of 61st and 62d articles of war.	Not promulgated	
7	Guest, John	2d lieutenant	8th Cavalry.....	Conduct prejudicial, &c.	General court-martial order No. 60, D. T., 1879.	Confinement to post for six months and forfeit all but \$75 per month.

Enlisted men tried by general court-martial in the Department of Texas between October 1, 1878, and September 30, 1879, and confined in the penitentiary or military prison.

Charges.									Aggregate.	Where confined.	Remarks.	
	4th Cavalry.	8th Cavalry.	10th Cavalry.	2d Artillery.	20th Infantry.	22d Infantry.	24th Infantry.	25th Infantry.				Non-commissioned staff.
Desertion	5	10	1	...	5	...	1	1	...	23	Leavenworth Military Prison.....	Escaped from guard-house after arraignment.
Desertion and theft	2	1	1	...	2	...	...	1	...	7	Two in Leavenworth Military Prison and five in Kansas State Penitentiary.
Desertion and worthlessness .....	...	...	...	...	1	...	...	...	...	1	Leavenworth Military Prison.....
Worthlessness, general .....	...	...	1	...	2	...	...	...	...	3	do
Theft, embezzlement, &c. ....	...	...	1	3	1	...	1	...	...	6	Four in Leavenworth Military Prison and two in Kansas State Penitentiary.
Embezzlement and neglect, &c. ....	...	...	...	...	...	...	...	1	...	1	Sentenced to Leavenworth Military Prison
Assault and robbery .....	...	...	...	...	1	...	...	...	...	1	Kansas State Penitentiary
Same with intent to kill .....	...	...	1	...	...	...	...	...	...	1	Leavenworth Military Prison.....
Same with desertion .....	...	...	...	...	...	1	...	...	...	1	do
Mutinous conduct	2	1	...	...	...	...	...	...	...	3	do
Perjury .....	...	...	...	...	...	1	...	...	...	1	do
Forgery .....	...	1	...	...	...	...	...	...	...	1	do
Total	9	13	5	3	11	1	4	2	1	49		

Enlisted men tried by general court-martial between October 1, 1878, and September 30, 1879, whose sentences are executed within the department.

Charge.	4th Cavalry.	8th Cavalry.	10th Cavalry.	2d Artillery.	10th Infantry.	20th Infantry.	22d Infantry.	24th Infantry.	25th Infantry.	Non-commissioned staff.	Seminole Indian scout.	Aggregate.	Remarks.
Desertion.....	2	1				1		1			1	6	Five dishonorably discharged; one temporarily confined and restored to duty. Dishonorably discharged. Do.
Worthlessness, general.....		1										1	
Theft.....		2	2					4	1			9	
Neglect of duty.....		3		1		1		4	1			10	
Assault and battery.....			1		1							1	
Insulting language to sentinel.....												1	
Striking an officer.....	1											1	
Disrespect towards an officer.....		2										2	
Drunk on guard.....	2	6		1	1	3	1	1	1			16	
Quitting guard.....	1	4			1							7	
Leaving post as sentinel.....		3	1	2								3	
Sleeping on post.....		2	1	1	1			2	1			11	
Absence without leave.....	4	9	1	1	1	3		2				20	
Drunkenness.....		1										1	
Disobedience of orders.....	1	1			3	1		1				7	
Conduct prejudicial, &c.....	4	3	2		3	4	4	6	1	2		29	
Selling or losing clothing, &c.....				1	1			1				3	
Perjury.....									1			1	
Total.....	15	36	8	8	12	14	5	22	6	2	1	129	Dishonorably discharged.

Turned over to civil authorities for trial since October 1, 1878.

Name.	Rank.	Company.	Regiment.	Crime committed.	Sentence.	Where confined.	Remarks.
Marshall, Moses ...	Private	H.....	25th Infantry	Murder	99 years.....	Texas State Penitentiary, Huntsville, Tex.	Tried before district court, Presidio County, Texas. Sentence passed April 9, 1879.

Enlisted men tried by general court-martial between October 1, 1878, and September 30, 1879, whose sentences were remitted by the department commander.

No.	Name.	Rank.	Company.	Regiment.	Charges.	Why sentence was remitted.	General court-martial order, Department of Texas, in which promulgated.
1	Ryan, James	Private ..	F	20th Infantry ..	Desertion	Recommendation of company commander.	No. 43, series 1878, paragraph VII.
2	Marsh, Alvis R	do	F	8th Cavalry ..	Disrespect towards an officer, &c.	Summary punishment at time, &c.	No. 43, series 1878, paragraph IX.
3	Milburn, Alexander	do	A	25th Infantry ..	Drunk on guard, sleeping on post	Unanimous recommendation by court.	No. 44, series 1878, paragraph V.
4	Byrnes, John	do	B	10th Infantry ..	Violation 21st and 62d articles of war.	Summary punishment at time of commission.	No. 47, series 1878, paragraph VI.
5	Sohlke, Ernst	do	F	do	do	do	Do.
6	Griffin, William	do	H	do	do	do	Do.
7	Sigloch, Michael	do	L	8th Cavalry ..	Absence without leave	Evidence fails to sustain charge	No. 12, series 1879, paragraph II.
8	Miller, Cooper	do	C	10th Cavalry ..	Violation 39th article of war ..	Recommendation by 5 of the court out of 7.	No. 15, series 1879, paragraph IV.
9	Irving, Thomas	do	K	20th Infantry ..	Violation 62d article of war	Previous punishment and peculiar circumstances.	No. 24, series 1879, paragraph II.
10	Bare, Martin B	do	H	3d Cavalry	Desertion	Recommendation by 5 members of court.	No. 29, series 1879, paragraph II.
11	Byrne, Patrick	do	I	10th Infantry ..	Violation 32d, 33d, and 62d articles of war.	Previously long and honorable service, &c.	No. 33, series 1879, paragraph X.
12	Corbett, Richard	do	C	8th Cavalry ..	Disrespect towards officer	Apology to officer considered sufficient.	No. 39, series 1879, paragraph II.
13	Snyder, Ernest	do	G	2d Artillery ..	Leaving post as sentinel	Evidence not conclusive of fact alleged.	No. 41, series 1879, paragraph IV.
14	Hanley, Michael	do	A	4th Cavalry ..	Desertion	Unanimous recommendation by court.	No. 44, series 1879, paragraph II.
15	Fortune, John T.	Corporal ..	H	24th Infantry ..	Neglect of duty	Evidence conflicting and not conclusive.	No. 47, series 1879, paragraph VI.

Enlisted men tried by general court-martial between October 1, 1878, and September 30, 1879, and sentences disapproved by the department commander.

Number.	Name.	Rank.	Company.	Regiment.	Charge.	Why disapproved.	General court-martial order, Department of Texas, in which promulgated.
1	Worley, Michael.....	Private ..	B.....	20th Infantry ..	Sleeping on post	Record fatally defective	No. 43, series of 1878, paragraph III.
2	Willson, James	do	F.....	8th Cavalry	Perjury	Evidence insufficient	No. 45, series of 1878, paragraph IV.
3	Davis, Charles II	do	K.....	4th Cavalry	Disrespectful language, &c	Charge not proven	No. 51, series of 1878, paragraph II.
4	Ward, Joseph	do	K.....	do	Mutinious conduct	Already punished sufficiently	Do.
5	Burton, John	Hospital-steward.	.....	U. S. Army	Striking soldier in hospital	Sentence insufficient, &c	No. 18, series of 1879, paragraph IV.
6	McGivney, Benjamin	Private ..	G.....	20th Infantry ..	Drunk and disorderly	Fatal defects in proceedings, &c.....	No. 31, series of 1879, paragraph II.
7	Hanzler, Louis	do	L.....	2d Artillery	Neglect of duty on post	Tried under one name, sentenced under another; other defects.	No. 37, series of 1879, paragraph II.
8	Harlan, William	do	K.....	24th Infantry ..	Stealing forage-cap, &c	Findings incomplete	No. 51, series of 1879, paragraph II.
9	Smothers, Isaac	do	II.....	do	Selling greatcoat	Statement contradicts plea; other defects.	No. 4, series of 1879, paragraph VI.

Enlisted men tried before general court-martial between October 1, 1878, and September 30, 1879—acquitted.

Number.	Name.	Rank.	Company.	Regiment.	Charges.	General court-martial order, Department of Texas, in which promulgated.	Remarks.
1	Averill, Frank W.....	Sergeant ..	K.....	4th Cavalry	False statements in official letter	No. 44, series 1878, paragraph III	
2	Hart, William D.....	Private ..	K.....	do	Stealing government pistol	No. 47, series 1878, paragraph IV	
3	Allen, Kendrick	Sergeant ..	A.....	24th Infantry ..	Neglect of duty as sergeant of guard	No. 48, series 1878, paragraph VIII	
4	Lewis, John	Private ..	H.....	8th Cavalry	Drunk on post	No. 52, series 1878, paragraph VIII	
5	Jones, James	do	E.....	25th Infantry ..	Stealing money from comrade	No. 2, series 1879, paragraph VII	
6	Suite, Benjamin R	do	A.....	20th Infantry ..	Striking non-commissioned officer	No. 4, series 1879, paragraph II	
7	Orgelman, Julius	do	H.....	do	Stealing tobacco from comrade	No. 5, series 1879, paragraph II	
8	Lee, Patrick H.....	Sergeant ..	D.....	4th Cavalry	Theft of clothing of a deserter	No. 10, series 1879, paragraph IV	Acquittal disapproved.
9	Kinney, Jerry	Private ..	M.....	10th Cavalry ..	Selling clothing of a comrade	No. 10, series 1879, paragraph VIII	
10	Brown, Daniel	do	F.....	8th Cavalry	Stealing pipe from a citizen	No. 10, series 1879, paragraph XII	
11	Scott, David J.....	Hospital-steward.	.....	U. S. Army	Theft of hospital liquors, large quantities	No. 21, series 1879, paragraph II	
12	Lawson, David	Private ..	A.....	8th Cavalry	Selling company rations without authority.	No. 27, series 1879, paragraph II	
13	Schable, Jacob	Sergeant ..	E.....	2d Artillery	Neglect of duty as sergeant of guard	No. 27, series 1879, paragraph IV	
14	McCormick, Martin	Private ..	G.....	22d Infantry ..	Accomplice in highway robbery	No. 46, series 1879, paragraph IV	
15	Harlan, Clinton C	do	C.....	8th Cavalry	Theft	No. 62, series 1879, paragraph II	
16	Almond, John B.....	do	D.....	22d Infantry ..	do	No. 62, series 1879, paragraph IV	

Military prisoners and convicts who have escaped from custody since October 1, 1878.

M. P. I. Number.	Name.	Late—			Charges.	Sentences.	Promulgated in—	Remarks.
		Rank.	Com- pany.	Regiment.				
1	Love, John	Private	K	24th Inf ..	Assault with intent to kill his wife.	8 years military prison.	G. C. M. O. No. 43, 1878.	Escaped from guard-house at Fort Brown, Tex., Dec. 31, 1878.
2	Lane, William E.	do	D	8th Cav ..	Theft	3 years penitentiary ..	G. C. M. O. No. 43, 1876.	Captured Jan. 31, 1879; escaped at San Antonio, Tex., Mar. 10, 1879; recaptured Mar. 25, 1879; is now in penitentiary.
3	Cronin, John.....	do	A	20th Inf.	do	Not sentenced.....		Escaped from guard-house at San Antonio, Tex., May 11, 1879, before trial was finished.
4	Sullivant, Jas. W.	Commissary-sergeant.		U. S. Army	Embezzlement	8 years military prison.	G. C. M. O. No. 55, 1879.	Escaped from guard-house at Fort McIntosh, Tex., June 25, 1879, after arraignment.
5	Smith, Andrew ...	Private	I	25th Inf.	Desertion	2 years military prison.	G. C. M. O. No. 30, 1879.	Escaped from guard-house while en route from Fort Davis, Tex., at Leon Springs, Tex., July 4, 1879.
6	Coughlin, Thomas ...	do	A	8th Cav ...	Absence and drunkenness	Not sentenced.....		Escaped from guard-house at Fort Clark, Tex., before arraignment.
7	Rohrer, John	do	K	4th Cav ..	Desertion	do		Escaped from guard-house at Fort Duncan, Tex., before arraignment.

RECAPITULATION AND COMPARISON.

	October 1, 1878, to September 30, 1879.			October 1, 1877, to September 30, 1878.	Remarks.
	Officers.	Soldiers.	Total.	Total.	
Total number of cases tried by general court-martial ..	7	214	221	299	Exclusive of men dishonorably discharged with loss of all pay, &c.
Total number sentenced to military prison		40		72	
Total number sentenced to penitentiary		9		10	Stoppages amount to, approximately
Total number of desertions		37		34	Fines amount to, approximately
Total number of thefts (9 colored and 6 white)		15		28	Total, general courts
Total number forgery (white)		1		2	
Total number of assaults with intent to kill (colored) ..		2		5	Aggregate.....
Total number of escapes		7		15		29, 892

GARRISON COURTS.

Total number of cases tried at the different posts since October 1, 1878.

Fort Brown.....	284
Fort Clark.....	512
Fort Concho.....	54
Fort Duncan.....	98
Fort McIntosh.....	124
Fort McKavett.....	149
Fort Ringgold.....	214
Post of San Antonio.....	53
Post of San Felipe.....	80
Fort Stockton.....	30
Cavalry camp on Las Moras Creek, &c.....	16
Infantry camp on Las Moras Creek, &c.....	39
Fort Davis.....	45
Fort Griffin.....	17
Post of San Diego.....	2
Total, to include August, 1879.....	1,717
Total for the same period of preceding year.....	1,728

NOTE.—The difference between commanding officers makes a comparison of the relative number of cases tried useless as a measure of the comparative efficiency of the discipline at different posts. For example, it is customary at San Felipe to punish every breach of discipline, however trivial, by sentence of court-martial. With one company of the Tenth Cavalry, and one company of the Twenty-fifth Infantry, eighty cases have been tried. While on the other hand comparatively serious offenses are only brought before courts at Fort Stockton, where, with two companies of the Tenth Cavalry and three companies of the Twenty-fifth Infantry, there have been only thirty trials.

Fines amount to \$10,716; stoppages, \$41; total money value, \$10,757.
Respectfully submitted,

WM. T. HOWARD,
Second Lieutenant Second Artillery, Acting Judge-Advocate.

Official copy respectfully furnished the Judge-Advocate-General,
United States Army, for his information.

WM. T. HOWARD,
Second Lieutenant Second Artillery, Acting Judge-Advocate.

HEADQUARTERS DEPARTMENT OF TEXAS,
Judge-Advocate's Office, September 20, 1879.

REPORT OF THE QUARTERMASTER-GENERAL.

REPORT

OF

THE QUARTERMASTER-GENERAL.

WAR DEPARTMENT,
 QUARTERMASTER-GENERAL'S OFFICE,
 October 10, 1879.

SIR: I have the honor to submit the annual report of operations of the Quartermaster's Department during the fiscal year ending 30th June, 1879.

The balance on the 1st of July, 1878, in the Treasury to the credit of the Quartermaster's Department was, as by last report.....	\$1,529,095 92
The appropriations made for the service of the Quartermaster's Department during the fiscal year were, in gross.....	11,263,388 16
Deficiencies for 1878 and prior years.....	16,352 76
Amounts deposited to credit of appropriations and received from sales to officers of public property....	701,427 42
Total.....	\$13,510,264 26
Remittances to disbursing officers have amounted to..	\$11,214,162 51
Requisitions to pay settlements made by the Treasury.....	858,967 70
Amount drawn by Commissary-General of Subsistence.....	12,135 50
War transfer warrant under act 3d March, 1875.....	7,189 16
Carried to surplus fund, act 30th June, 1874.....	198,108 26
Total.....	12,290,563 13
Balance in Treasury undrawn at end of 30th June, 1879.....	1,219,701 13

A table accompanying this report gives the amount of the various items of appropriations, remittances, &c., in detail.

A table is also with this report giving the annual appropriations and annual expenditures for the Quartermaster's Department for each fiscal year since 1st of July 1871.

Referring to this table for details, I note here that the expenditures have been as follows:

In the year ending June 30, 1872.....	\$12,722,116 98
In the year ending June 30, 1873.....	13,851,215 04
In the year ending June 30, 1874.....	14,558,317 01
In the year ending June 30, 1875.....	12,570,392 92
In the year ending June 30, 1876.....	12,546,691 65
In the year ending June 30, 1877.....	12,219,599 40
In the year ending June 30, 1878.....	10,746,161 65
In the year ending June 30, 1879 (so far as ascertained).....	10,758,001 11

The Quartermaster's Department is charged with the duty of providing the means of transportation by land and water for all troops and all material of war. It furnishes the horses of the artillery and cavalry, and horses and mules for the trains. It provides and distributes clothing, tents, camp and garrison equipage, forage, lumber, and all material for camps and for shelter of troops and stores. It builds barracks, storehouses, hospitals; provides wagons and ambulances, and harness, except

for cavalry and artillery horses; builds or charters ships, steamers, and boats, docks and wharves; constructs and repairs roads, railways, and bridges; clears out obstructions in rivers and harbors, when necessary for military purposes; provides, by hire or purchase, grounds for military encampments and buildings; pays generally all expenses of military operations not by law assigned to some other department; and, finally, it provides and maintains military cemeteries in which the dead of the Army are buried.

Food, arms, ammunition, medical and hospital stores are purchased and issued by other departments, but the Quartermaster's Department transports them to the place of issue and provides storehouses for their preservation until consumed.

The corps of officers upon whom all these duties fall has been reduced until it is not able to fill well every post at which an officer of activity and ability is needed.

Many officers of the line finding themselves charged with heavy responsibility as acting assistant quartermasters, and having insufficient assistance at frontier posts, ask that the enlistment of post quartermaster sergeants may be allowed by law. Such non-commissioned officers, selected for experience and fidelity shown in actual service, would be very useful. They would remain at posts in charge of the property when the garrison changed, and thus would preserve knowledge and responsibility, now often lost through the frequent change of officers. Such officers also ask that some compensation may be granted them for the risk which they incur in the disbursement of public money and for the responsibility involved in the care of large amounts of public property.

I have the honor to renew the recommendation heretofore made, that an allowance of \$10 per month be made, in addition to his pay, to every line officer who is detailed by proper authority as acting assistant quartermaster of a military post, when such detail is properly reported to and approved by the War Department. Such an allowance is only just, and it would relieve the service from the feeling that heavy duties are imposed by such detail without any recognition or compensation.

Such duties are important and they should be sought by good officers, not imposed upon the slothful or unwilling.

DUTIES OF OFFICERS.

Col. Stewart Van Vliet has been on duty in this office in charge of the inspection branch and as inspector.

Lieut. Col. J. D. Bingham has had charge of the finance branch and of the examination of accounts and returns of officers preparatory to their being transmitted to the Treasury for settlement; and of the supply and distribution and manufacture of clothing and camp and garrison equipage.

Lieut. Col. H. C. Hodges has had charge of the transportation and regular supply branch of the office.

Maj. R. N. Batchelder was on duty in this office in charge of the claims branch and of barracks and quarters until November 7, 1878, when he was relieved to take charge of the general and division depot of the Pacific States and Territories at San Francisco, Cal., by Maj. James M. Moore, who has since had charge of the claims branch and of all matters relating to the construction and maintenance of military buildings.

Capt. A. F. Rockwell has had charge of the maintenance and improvement of the national military cemeteries, and has also done the duty of depot quartermaster at this station.

Other principal regular stations have been occupied as follows:

Col. D. H. Rucker, assistant quartermaster-general, has been in charge of the Philadelphia general depot of the Quartermaster's Department, the principal depot for purchase and manufacture of clothing for the Army.

Col. Rufus Ingalls, assistant quartermaster-general, chief quartermaster of Military Division of the Missouri, Chicago, Ill., and since October 28, 1878, also depot quartermaster at that station.

Col. L. C. Easton, assistant quartermaster-general, chief quartermaster Military Division of the Atlantic, New York City, until August 9, 1878, since then in charge of the general depot of the Quartermaster's Department at New York City.

Lieut. Col. S. B. Holabird, deputy quartermaster-general, chief quartermaster Military Division of the Pacific and Department of California at Presidio of San Francisco, Cal.

Lieut. Col. Charles H. Tompkins, deputy quartermaster-general, chief quartermaster Department of Dakota, Saint Paul, Minn.

Lieut. Col. James A. Ekin, deputy quartermaster-general, in charge of the general depot of the Quartermaster's Department at Jeffersonville, Ind., disbursing agent of the Quartermaster's Department at Louisville, Ky., and in charge of the National Military Cemeteries in Kentucky and Tennessee.

Lieut. Col. Rufus Saxton, deputy quartermaster-general, chief quartermaster Department of the Missouri, Fort Leavenworth, Kans.

Lieut. Col. A. J. Perry, deputy quartermaster-general, chief quartermaster Military Division of the Atlantic and Department of the East, Governor's Island, New York Harbor.

Lieut. Col. J. G. Chandler, deputy quartermaster-general, chief quartermaster Department of the South, at Newport Barracks, Ky.

Maj. William Myers, quartermaster, depot quartermaster San Francisco, Cal., until August 20, 1878, thenceforward on leave of absence.

Maj. C. G. Sawtelle, quartermaster, chief quartermaster Department of the Columbia, at Fort Vancouver, Washington Territory.

Maj. J. J. Dana, quartermaster in charge of clothing depot at Philadelphia, Pa., until November 16, 1878, and since December 6, 1878, chief quartermaster District of New Mexico, at Santa Fé, N. Mex.

Maj. R. N. Batchelder, quartermaster, until November 7, 1878, on duty in the Quartermaster-General's Office, and since November 15, 1878, in charge of the general depot of the Quartermaster's Department and disbursing quartermaster at San Francisco, Cal.

Maj. M. I. Ludington, quartermaster, chief quartermaster Department of the Platte, Omaha, Nebr.

Maj. B. C. Card, quartermaster, chief quartermaster Department of Texas, San Antonio, Tex.

Maj. C. A. Reynolds, quartermaster, until July 3, 1878, depot quartermaster at Vancouver, Washington Territory; to September, 30, 1878, in charge of settlement of Nez Percés war claims at Portland, Oreg., and from October 17, 1878, disbursing quartermaster at Buffalo, N. Y.

Maj. George B. Dandy, quartermaster, until August 24, 1878; disbursing quartermaster at Buffalo, N. Y., and from September 21, 1878, purchasing and shipping quartermaster at Portland, Oreg.

Maj. George H. Weeks, quartermaster, chief quartermaster Department of Arizona at Prescott Barracks, Arizona Territory, to May 23, 1879; also depot and disbursing quartermaster at Whipple Depot, Arizona Territory.

Maj. Wm. B. Hughes, quartermaster, to January 9, 1879, receiving

and shipping supplies at Yankton, Dakota Territory, thenceforward depot quartermaster at Saint Louis, Mo.

INSPECTION BRANCH.

This branch of the office keeps the monthly reports of all officers doing duty in the Quartermaster's Department, papers relating to the assignment to duty of officers, distribution of hired civilians, and the annual reports of officers. In it are filed and distributed orders, circulars, rolls of honor, and all other printed documents. It prepares the monthly roster of officers of the Quartermaster's Department. It keeps files of letters sent and received relating individually to officers, agents, and employés of the department.

It received 91,977 written and printed papers and distributed 68,111 during the year.

TRANSPORTATION.

The movement during the year was of 59,177 persons, 4,921 beasts, and 120,440 tons of material, the cost of which is, as reported, \$2,215,968.05.

The larger movements of troops were:

First Cavalry, Company D, from Department of California to Department of Columbia, 1,005 miles.

Fourth Artillery, Companies A and D, from Department of Columbia to Department of California, 788 miles.

Eighth Infantry, Companies A, B, C, D, E, G, I, and K, from Department of Arizona to Department of California, 1,234 miles.

Tenth Infantry, headquarters and ten companies from Department of Texas to Department of the East, 1,935 miles.

Twelfth Infantry, Companies B, C, D, E, F, G, H, I, and K, from Department of California to Department of Arizona, 1,268 miles.

Eighteenth Infantry, headquarters and ten companies from Department of South to Department of Dakota, 2,424 miles.

Twenty-second Infantry, headquarters and ten companies from Department of the East to the Department of Missouri and Texas, 1,629 miles.

RAILROAD TRANSPORTATION.

Twenty-nine thousand seven hundred and ten persons, 3,758 beasts, and 57,866 tons of material were moved by railroad the cost of which service, excluding that over the bonded Pacific and land-grant railroads, was, as reported, \$601,436.53.

Under existing laws payments are not made out of appropriations of the Quartermaster's Department for military transportation over the bonded Pacific and land-grant railroads; the estimated value of that service for the fiscal year is: For transportation over the Pacific railroads, \$700,000; for transportation over the land-grant railroads, \$150,000; indicating that the aggregate value of all military transportation by rail during the year was \$1,451,436.53.

The railroad business of the Army is conducted according to the same rules, with the same general forms of requests, receipts, and accounts referred to in my report of last year. A general order (44 of 1879) was issued detailing the method of marking boxes, packages, &c., for shipment so that there shall be less difficulty hereafter in tracing any article lost *in transitu* and less danger of confusion in shipments.

The refusal of a number of land-grant railroads and their immediate connections to provide through tickets at through rates for the Quarter-

master's Department because payments for military transportation over land-grant railroads are prohibited by law, notwithstanding that the principle has been established by the Supreme Court that they are entitled to some compensation for such service, has embarrassed the department and in some cases necessitated payments at high local rates for transportation which the citizen, not in military service, secures at lower through rates.

The difficulties have been partially overcome by correspondence with the railroads of the country, but cannot be finally settled until Congress authorizes some compensation to land-grant railroads for services performed for the department.

My views on the subject are fully set forth in Senate Ex. Doc. No. 28, Forty-fifth Congress, parts 1 and 2—copies herewith.

The sundry civil appropriation law of March 3, 1879, appropriated \$300,000 to pay 50 per centum of land-grant railroad accounts theretofore wholly disallowed by the prohibitory laws of 1874 and 1875.

Two hundred and twenty-four of such accounts, amounting at full tariff rates to \$685,624.83, were filed in this office by the various land-grant railroads under the provisions of that law; 111, amounting to \$523,618.93, had been, on June 30, 1879, adjusted and referred to the Treasury for settlement. Similar accounts approximating \$120,000 had passed this office and were in the Treasury before the passage of the sundry civil law of March 3, 1879, and it is estimated that similar accounts amounting to \$100,000 are still in the hands of railroad companies, not presented after ascertainment that the appropriation made was not sufficient to pay them all.

This indicates that the outstanding accounts of land-grant railroads for military transportation on June 30, 1879, aggregated, at full tariff rates, about \$900,000, or, at 50 per centum of such rates, \$450,000.+

The sum of \$300,000, having been appropriated to pay 50 per cent. there is an apparent deficit of \$150,000, which sum should be appropriated in addition to the \$300,000 already appropriated to pay 50 per centum of all land-grant railroads accounts outstanding June 30, 1879. An appropriation of \$300,000 would be sufficient to settle nearly if not quite all such accounts on a basis of two-thirds of tariff rates, which, in my opinion, should be paid to these railroads for military transportation.

It is hoped that Congress will repeal the laws prohibiting payments to land-grant railroads, and fix a certain rate of compensation for the services they may render the government, authorizing payments from the regular Army transportation appropriation as made before the passage of the prohibitory laws.

The bonded Pacific railroads are still held subject to the provisions of section 5260 Revised Statutes, directing the withholdment by the Secretary of the Treasury of all payments on account of transportation over their respective roads.

The disposition of the money so withheld from the Union Pacific and Central Pacific Railroads for transportation after July 1, 1878, is controlled by the act of May 7, 1878. It is to be applied, one-half to the establishment of a sinking fund, and the other half to the liquidation of the interest paid by the United States upon the bonds issued in behalf of said roads.

Prior to the passage of the law of May 7, 1878, all the money withheld by the Secretary of the Treasury from those railroads had been applied to the liquidation of the interest.

The deficiency appropriation law of March 3, 1879 (Public No. 86), contains a provision authorizing the Secretary of the Treasury—

* * * to make such entries upon the books of the department as will carry to the credit of said companies the amounts earned or to be earned by them during each fiscal year, and withheld under the provisions of section 5260 of the Revised Statutes, and of the act of Congress approved May 7, 1878; provided that this shall not authorize the expenditure of any money from the Treasury * * *

This law has been construed as releasing the appropriations for Army transportation from any charges on account of transportation over the bonded Pacific railroads, and the amounts found due are no longer drawn from those appropriations as prior to the passage of this law.

It has also operated to close and settle adjusted accounts of these roads for services running from 1871 to 1879, amounting to \$1,583,052.98, which could not be settled before, because the Army transportation appropriations, originally applicable, had been expended for other legitimate transportation bills.

Unsettled accounts of these roads, amounting to \$483,972.54, which have been presented by the railroads are now under adjustment, and in course of settlement under the same provisions of law.

The following statement indicates the total allowances for military transportation over these roads from the date they were first opened for traffic up to June 30, 1879:

Names of companies.	Amount paid in cash.	Amount credited on bonds under act of July 2, 1864.	Amount withheld under act of March 3, 1873, Rev. Stat. 5260, and act of May 7, 1878.	Total.
Union Pacific	\$1,600,034 44	\$1,600,034 62	\$3,230,201 57	\$6,610,270 63
Central Pacific	223,517 45	223,517 43	505,198 33	952,233 21
Kansas Pacific	880,341 07	880,341 08	525,684 34	2,286,366 49
Sioux City and Pacific	4,403 89	4,403 90	20,681 33	29,489 12
Total	2,798,296 85	2,798,297 03	4,281,765 57	9,878,359 45

The following statement exhibits the military transportation services of the Pacific railroads during the fiscal year ending June 30, 1879:

Names of companies.	Number of persons transported.	Number of animals transported.	Pounds of freight transported.
Union Pacific	6,556	1,088	44,370,129
Central Pacific	2,688	112	2,900,734
Kansas Pacific	1,081	558	4,487,419
Sioux City and Pacific	161	28	383,300
Total	10,486	1,786	52,147,582

The value of this service, at tariff rates, was (approximately, all the accounts not yet being rendered):

On the Union Pacific	\$463,943 40
On the Central Pacific	155,000 00
On the Kansas Pacific	3,000 00
Total	721,943 40

At the close of the fiscal year there remained in this office and at the Treasury unsettled accounts of the Pacific railroads to the amount of

\$325,364.13 in this office, and \$158,608.41 in the Treasury; a total of \$483,972.54.

The total value of the military transportation over these roads to 30th June, 1879, is \$10,362,331.99.

WAGON AND STAGE TRANSPORTATION.

There were 31 contracts for wagon transportation during the year; 32,539 tons of supplies were moved by wagon teams at a cost of \$858,142.56, and 3,285 passengers by stage at a cost of \$76,747.12.

WATER TRANSPORTATION.

During the year 26,182 passengers, 1,163 beasts, and 60,022,000 pounds of stores were carried by vessel, the cost of which service was, as reported, \$679,641.84.

The following-named vessels, owned by the Quartermaster's Department, have been in service during the year, viz:

Steamer Henry Smith in New York Harbor; propeller Ordnance, in New York Harbor, to keep up communication with the ordnance-proving grounds at Sandy Hook; steam-tug Atlantic, in New York Harbor, to keep up communication with Headquarters Division of the Atlantic, on Governor's Island; screw-propeller General McPherson, in San Francisco Harbor; steam-launches General Jesup, at Fort Adams, Rhode Island; Thayer, in Boston Harbor; Monroe, at Fortress Monroe; General Greene, at Fort McHenry, Baltimore; Hamilton, at David's Island, New York Harbor; Barrancas, at Fort Barrancas, Fla.; light-draught river steamer General Sherman, on the Upper Missouri and the Yellowstone and Big Horn Rivers.

The sailing schooner Matchless was employed at Key West, Fla.

One steam-tug, the Atlantic, was purchased during the year at a total cost of \$13,865.56, for service in keeping up communication between Headquarters Department of the East and Military Division of the Atlantic, on Governor's Island, New York Harbor, and the city.

These vessels, except the General Sherman, are employed as tenders for military posts; they keep up communication, enable the officers to board passing vessels when necessary, and explore the waters within the radius of their influence.

The Sherman is employed in carrying troops and supplies to and from the upper posts on the Missouri and its tributaries.

The great portion of the transportation service of the Quartermaster's Department on the ocean, lakes, and rivers is performed by the established commercial lines, and on the Upper Missouri under advertisement and contract.

The Upper Missouri service is costly and forms a considerable portion of the expenditure for transportation of the Army, but it is well and promptly performed.

The cost of running and maintaining the vessels owned by the department itself during the year was \$104,305.28.

There was paid for vessels hired and chartered during the same time \$32,462.81, exclusive of the cost of freight and passengers carried on the vessels of contractors for transportation.

INDEBTED RAILROADS.

On the 1st of July, 1878, there remained due to the United States by certain railroads for material sold them on credit at the end of the

war, under executive orders of 8th August and 14th October, 1865, \$1,892,677.11.

One of the companies, the Nashville and Northwestern, is insolvent; its indebtedness, amounting to \$908,550.27, has therefore been transferred to the list of companies whose debts are not collectible.

During the fiscal year 1878-79 accrued interest and charges on these debts amounted to \$42,591.49. Payments in military transportation amounted to \$243.57. And the sum remaining due and charged to the indebted railroads with which no compromise or settlement has been effected under the various acts passed for their relief, and whose names and debts have not been stricken from the list of indebted railroad companies on account of their insolvency, was on July 1, 1879, \$1,026,474.76.

Accounts in favor of the Mobile and Ohio Railroad amounting to \$28,891.88 have been settled under the act of March 3, 1879, appropriating \$300,000 to pay for transportation over certain land-grant railroads, and 50 per centum of the amount, \$14,445.94, allowed by the accounting officers of the Treasury Department. This amount has not been credited on the indebtedness of the company, as no award for it has been received at this office. Other accounts of the company remain unsettled for want of an appropriation to pay them.

In postal earnings there are due—

The McMinnville and Manchester Railroad.....	\$5,054 37
The Nashville and Northwestern Railroad	55,581 92
Total	60,636 29

These sums are due for services in conveying the mails prior to July 1, 1876, and are payable to the Quartermaster's Department, to be credited when paid upon the debts incurred by those two roads.

The amount due the Nashville and Northwestern Railroad has been regularly assigned by the company to the Quartermaster's Department, and only awaits an appropriation for its payment. I recommend that special effort be made at the next session of Congress to secure the necessary appropriation to pay the amount, or the passage of a law which will authorize the Postmaster-General to adjust and settle the account of the railroad for services in carrying the mails prior to July 1, 1876, and to draw his warrant on the Treasurer of the United States for whatever sum he may find to be due for the service, as was done in the act of March 3, 1879, authorizing the Secretary of War to reopen and adjust the settlement made with the Western and Atlantic Railroad of Georgia for property purchased by that road.

The amount due the United States payable from the unpaid postal earnings of the McMinnville and Manchester Railroad (\$5,054.37) cannot be paid and credited on the indebtedness of that road, for want of an appropriation by Congress. I recommend that the necessary appropriation be asked for.

Efforts have been made for a number of years by most if not all the railroad companies that purchased property of the United States at the close of the war, and that have paid in full the debts incurred for it, to secure the passage of a law directing the Secretary of War to reopen and readjust the settlements that have been made with those companies on the basis of settlements made with certain Tennessee railroads, against which suits have been brought under the act of March 3, 1871, and to refund a portion of the money received by the United States from the companies in payment of their debts.

The amount which would be taken out of the Treasury and paid to the railroad companies, if the efforts of the companies should succeed, is estimated to be about \$1,043,000, or 33½ per cent. of the whole amount received from those companies, and it might exceed \$1,148,000.

I have already stated my views fully in relation to the propriety of granting the relief, so called, asked for by the companies, in my communications to the Secretary of War of April 26, 1876, and January 24, 1879, which will be found in Senate Ex. Doc. No. 57, Forty-fourth Congress, first session, and the Congressional Record for February 9, 1879, and I need here only invite attention to them.

A tabular statement accompanies this report in which will be found full details of all collections, settlements, compromises, and claims on account of the debts of the indebted railroads, and of the balance still due and unsettled.

CAVALRY AND ARTILLERY HORSES.

During the fiscal year 1,686 horses were purchased for the cavalry and artillery service; they cost \$156,164.98.

The prices varied as follows: In the Northern and Eastern States it was \$141.59+; in Department of the South, \$175; in Department of Dakota, \$111.03+; in Department of the Missouri, \$97.58+; in Department of the Platte, \$103.52; in Department of California, \$127.88; in Department of the Columbia, \$90.49+; in Department of Arizona, \$75; at Chicago depot, \$125; and at Saint Louis depot, \$83.55. The average of the whole United States, \$92.62+.

Last year the average price was \$117.23, a difference of nearly 20 per cent.

One thousand four hundred and eighty-nine mules were purchased for \$156,963.23. Average cost in Department of the Missouri, \$107.25+; Department of the Platte, \$102.80+; Department of California, \$171.27+; Department of the Columbia, \$139.16+; Department of Arizona, \$116.66+; New York depot, \$131.25; Washington depot, \$170; and Saint Louis Depot, \$99.95. Average of all purchased, \$105.41+.

Last year the average price of mules was \$130.15, also a reduction of about 20 per cent.

Seventy-nine draught horses were also purchased, costing \$12,486, or \$158.05 each.

Seventeen hundred and twenty-five horses worn out were sold during the year for \$57,646, and 535 mules for \$17,464.55, and 5 oxen for \$83.

Crediting the expense of remounts for cavalry and artillery.....	\$156,164 98
And of draught horses.....	12,486 00
And of mules.....	156,963 23

Total.....	325,614 21
With the proceeds of sales of worn-out animals.....	75,193 55

The actual cost to the United States of cavalry and artillery horses and draught animals has been..... 250,420 66

But under the law the sums realized from sales of worn-out animals are not applicable to purchase of animals to replace them, but have been turned into the Treasury to credit of miscellaneous receipts.

The following statement shows the number of animals in service July 1, 1879 :

	Horses.	Mules.	Oxen.
In service July 1, 1878.....	11, 375	9, 688	59
Bought during the year.....	1, 765	1, 489	2
Taken up, &c.....	538	147	1
	13, 678	11, 324	62
There were sold.....	1, 725	535	5
Died.....	586	482	14
Lost and stolen.....	377	276	.....
	2, 688	1, 293	19
In service on June 30, 1879.....	10, 990	10, 031	43

An average of about 100 horses and mules to 120 soldiers. These are with the troops. In addition a large number of mules and oxen belonging to contractors are constantly employed in hauling supplies and baggage between military posts in the interior of the continent.

FUEL, FORAGE, AND STRAW.

A change has been made in the method of supplying fuel to all officers of the Army, and the issue of forage to officers east of the Mississippi River has been discontinued under the law, which feeds and supports the horse of an officer west of that river, but requires the officer east of it, drawing the same pay, if mounted, to purchase forage out of his pay, or his private income, should he be so fortunate as to have any.

Officers submit loyally to the law, but it is difficult for them to persuade themselves that in making this distinction between the two sides of a geographical line they have been treated with that equal liberality and justice which has always heretofore characterized the military legislation of the country.

There was issued to the Army during the year, 628,268 bushels of corn; 952,473 bushels of oats; 180,529 bushels barley; 51,934 bushels of bran; 53,078 tons of hay; 140 tons of fodder, and 2,462 tons of straw.

The issues of fuel were 42,096 cords of hard wood; 71,582 cords of soft wood; 19,391 tons of anthracite coal, and 16,279 tons of bituminous coal.

General Orders No. 113, Headquarters of the Army, 14th December, 1877, published a new scale of equivalents to govern the issue of fuel. Further official experiments on the values of the different fuels of the United States, especially of coals, are desirable, and it is to be hoped that Congress may grant an appropriation for this investigation.

The law which abolished issue of fuel to officers causes great hardship to those who are stationed at military posts in inclement climates, and where fuel is scarce and costly.

It is much to be desired that this allowance be restored. It is even more unjust to those in the wilderness than the abolition of the forage ration is to those living east of the Mississippi.

CONTRACTS.

Eight hundred and seventy-eight contracts were received at this office for supplies, materials, and for work in the various branches of the military service connected with the Quartermaster's Department.

MILITARY CARRIAGES AND HARNESS.

There were purchased during the year, 281 six-mule, 215 two horse and four horse or mule wagons, 72 spring wagons, 50 ambulance wagons, and 6 miscellaneous wagons, trucks, and drays.

Of these there were purchased under contract, after advertisement, 200 six-mule wagons from Studebaker Brothers, of South Bend, Ind., at \$89.90 each; 25 six-mule wagons from Henry M. Black, of San Francisco, Cal., at \$200 each; 100 two horse and four horse or mule wagons from Wilson, Childs & Co. of Philadelphia, Pa., at \$83 each; 100 two horse and four horse or mule wagons from the Kansas Manufacturing Company of Leavenworth, Kans., at \$84 each; 15 two horse and four horse or mule wagons from Henry M. Black, of San Francisco, Cal., at \$200 each; 40 spring wagons, Dougherty pattern, from Wilson, Childs & Co., of Philadelphia, Pa., at \$165 each; 25 spring wagons, Dougherty pattern, from the Kansas Manufacturing Company of Leavenworth, Kans., at \$149.50 each, and 50 ambulance wagons, Army pattern, from the Kansas Manufacturing Company of Leavenworth, Kans., at \$174.50 each.

Forty-one spring wagons have been furnished to posts and depots during the year.

One hundred and seventy-five sets of six-mule wagons, and 100 sets of four-mule ambulance harness, were purchased under contracts at \$57.10 per set for six-mule wagons and \$52 per set for four-mule ambulance harness.

TARGETS FOR RIFLE PRACTICE.

Fifteen targets of cast iron have been issued to the Army during the year. On the 16th of August, 1879, under General Orders No. 86, Headquarters of the Army, the duty of providing targets for rifle practice was transferred to the Ordnance Department, and this department ceased to purchase and issue them.

EXPLORING EXPEDITIONS.

Under General Orders No. 62, Headquarters of the Army, 3d July, 1877, this department has continued to give materials and transportation and other aid to the surveying expeditions under Lieut. George M. Wheeler, of the Corps of Engineers.

CLAIMS UNDER ACT OF JULY 4, 1864.

In the report herewith of Maj. J. M. Moore, who, since the 7th November, 1878, when he relieved Maj. R. N. Batchelder, until that time in charge of the claims branch of this office, will be found full details as to the number and cost of agents and clerks engaged in the work of investigating and preparing for settlement the claims for quartermaster's stores taken by the Army and delivered to and used by the Army during the late war in States not in rebellion.

The act of July 4, 1864, made it the duty of the Quartermaster-General to receive and to investigate all such claims, and if convinced of their justice, of the loyalty of the claimant, and that the stores have been actually received or taken for the use of and used by the Army, then to report each case to the Third Auditor, with recommendation for settlement.

The total cost of these examinations during the past year is estimated at \$122,825.52.

The number of claims reported on by agents during the year is 2,460, calling for \$1,915,614.84. The amount recommended for allowance by agents is \$220,534.22.

There were on file on 1st July, 1878, 11,676 claims, and during the year 1,640 new claims were filed, making a total of 13,316, calling for \$6,921,592.50. Of these 635 were favorably acted on by the Quartermaster-General during the year, and 1,032 were rejected.

These 1,667 claims decided by this office called for \$1,398,298.55. The amount reported to the Treasury recommended for allowance was \$121,568.26.

At the close of the fiscal year 1,446 claims were on file prepared for the final action of the Quartermaster-General, but had not been acted on by him for want of time and opportunity. Many of these have since been disposed of.

The total amount of the 3,796 claims which have been disposed of, or which have received preparatory consideration during the year, is \$3,186,658.55; average amount of each claim, \$840.00. The average cost of investigating and preparing these for action of the Quartermaster-General was \$32.00 each. This includes the cost of receiving, recording, and answering a multitude of inquiries from claimants, their friends, and their attorneys or agents.

The last annual report of this office contains a detailed table in regard to these claims which I do not repeat here.

The general summary of the work may be shortly stated as follows:

There have been filed under the act of July 4, 1864, 40,748 claims, for \$30,557,014.99; 9,905 have been reported by the Quartermaster-General with recommendation for allowance, amounting to \$4,143,932.95; the face of these claims was reduced by the sum of \$3,566,792.44; 19,194 claims, calling for \$17,322,995.60, have been rejected as not proved or not meritorious.

MISCELLANEOUS CLAIMS AND ACCOUNTS.

On July 1, 1878, there were on file in this office 12,450 claims, amounting to	\$6,895,073 79
And 328 accounts, amounting to	51,127 53

Making in the aggregate 12,778 claims and accounts, amounting to ...	6,947,001 32
During the year 2,031 were received, amounting to	273,472 93

Total claims and accounts	7,220,474 25
---------------------------------	--------------

During the year, 115 claims were examined and approved for \$9,577.04, being \$1,170.70 less than claimed.

One hundred and eighty-one claims were referred to the Third Auditor of the Treasury for action of the accounting officers, amounting to \$25,063.64.

One hundred and sixty-two claims, amounting to \$124,224.08, were referred to other departments to which they properly pertained.

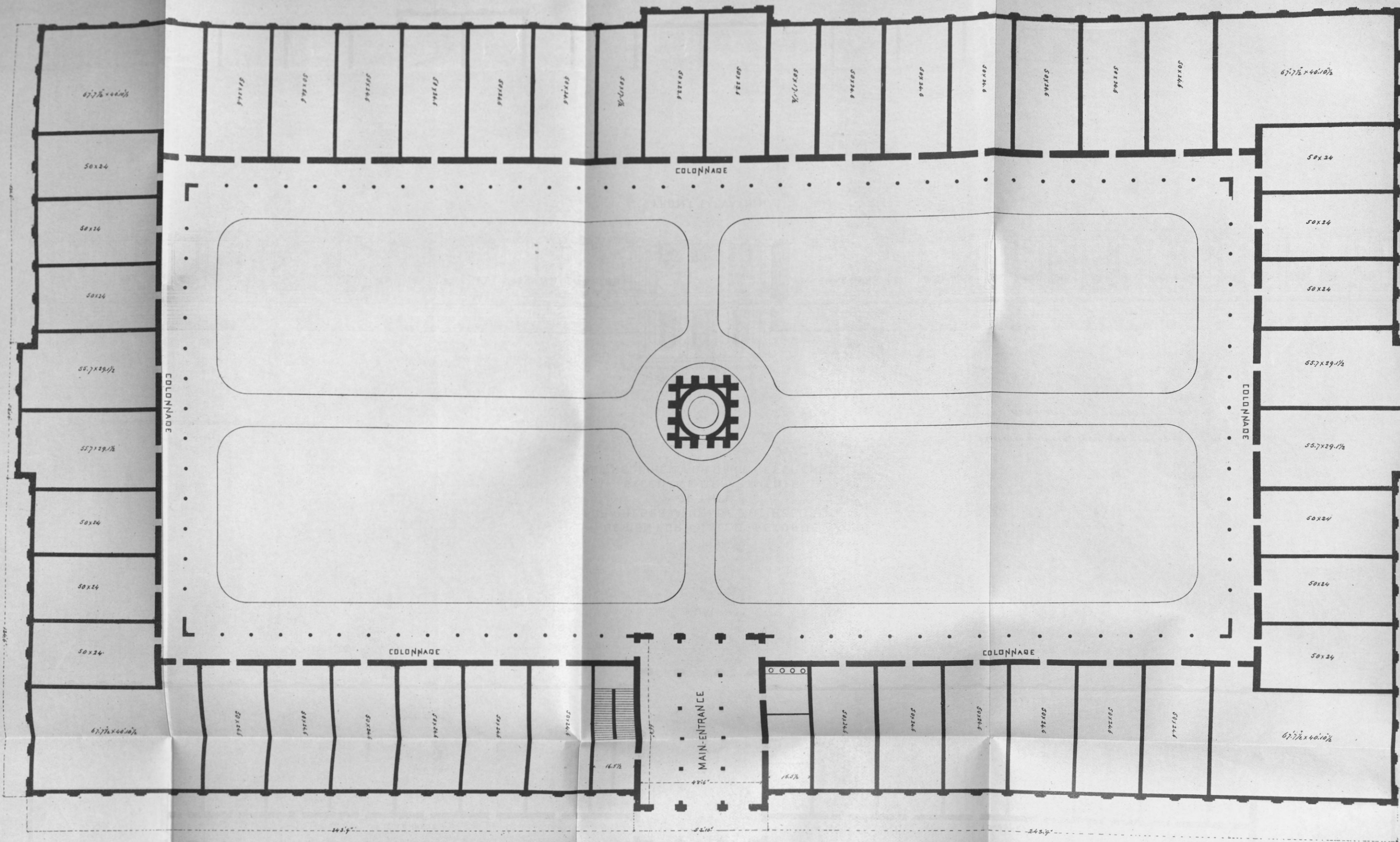
One hundred and twenty, amounting to \$25,264.82, were rejected.

Eight hundred and sixty-three accounts, amounting to \$39,303.88, were approved, being a deduction in the amount as presented of \$1,050.65.

Four hundred and forty-five were referred to other departments, amounting to \$30,965.48.

Nineteen accounts, amounting to \$682.59, were rejected, making a total of 1,905 claims, and accounts, calling for \$257,301.88 disposed of during the year.

There are still on file, unsettled, 12,513 miscellaneous claims and 391 accounts, amounting, as presented, to \$6,963,172.37.



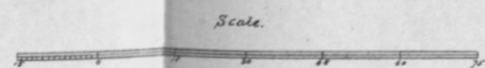
PLAN

DESIGN FOR "HALL OF RECORDS"
 FOR PRESERVATION OF THE RECORDS
 OF THE
 EXECUTIVE DEPARTMENTS,
 NOT REQUIRED FOR DAILY REFERENCE.

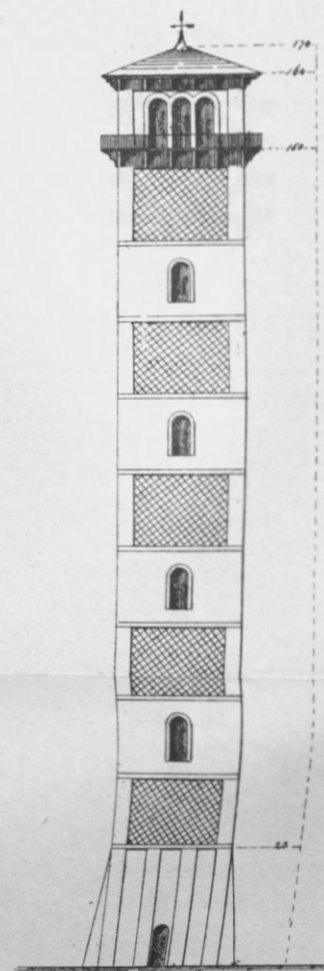
Mc Meigs

Quartermaster General,
 Bot Major General, U.S.A.

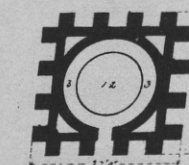
Floor area, under roof, 70,000 square feet, equal to 1/3 acre
 Storage space, 1750,000 cubic feet
 Estimated cost, \$200,000.



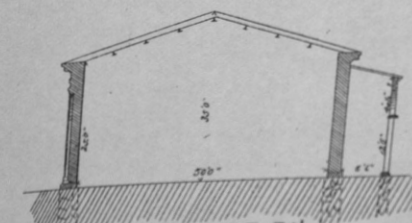
FRONT ELEVATION



ELEVATION OF WATER AND WATCH TOWER



PLAN



CROSS SECTION

SAFETY OF RECORDS.

I renew the recommendation which I made last year and which met your approval, that Congress be requested to provide for the erection of a fire-proof Hall of Records, and I again present the plan then submitted.

The papers relating to the claims filed in this office are very bulky and are valuable. They contain the evidence for and against claims reported above as amounting, on 1st July last, (1878,) to 12,778 miscellaneous claims and accounts, \$6,947,000; and 11,676 claims under the act of July 4, 1864, \$5,960,172.55.

Until the 2d of August of this year, 1878, it was the custom of this office to transmit to the Third Auditor of the Treasury not only all the claims recommended for settlement in order that they might be paid or reported to Congress under existing laws for appropriation, but also all the papers, evidence, reports and decisions in cases which, on examination, the Quartermaster-General found himself unable to report favorably.

On that date the Third Auditor advised this office that his file-rooms were burdened with these claims, which he had theretofore received and placed in the fire-proof rooms containing the records of his office, but that the space at his command was too small to justify him in continuing to receive papers which he found no existing law requiring him to take care of, and for which in fact he now had no space.

This office is in a building not in any respect fire-proof. A fire originating in it would, in despite of all precautions of watchmen constantly on duty here, and water always kept ready, and portable fire-extinguishers, probably clear all persons out of the building before any considerable portion of the records could be removed.

A fire-proof storehouse of simple and cheap construction could be built on some place convenient to the executive offices for about \$200,000, which would afford perfectly safe and convenient storage for such of these papers as have been finally disposed of, and for such others as are seldom consulted. Telegraphic or telephonic communication with its superintendent would bring to every office in a few moments any paper needed for reference.

Such a building would not only relieve this combustible and unsafe office of the valuable papers relating to many of these claims, but of many other papers whose loss would be a grievous calamity. It would also relieve the War and Treasury Departments of papers which now occupy rooms costing millions of dollars.

I submit a plan which I have caused to be prepared of such a building, to be 302 by 540 feet, surrounding a court-yard 171 by 309 feet.

It would occupy a whole block, would provide 70,000 feet of asphalted floor under fire-proof roof (about one and two-thirds acres), would contain 1,750,000 cubic feet of storage room, and could be built for about \$200,000.

It has but one door of entrance from the street. The rooms are all separated by fire-proof party walls without openings. There are windows on the street and on the court, placed high, so as not to be easily reached or forced. Each room communicates by a strong door with a covered porch surrounding the court-yard. A water and watch tower in the center keeps a supply of water constantly at a sufficient head to extinguish fire, which, originating in any one room, could not possibly communicate to the other rooms, and, in fact, could be extinguished before it could destroy much of the contents of the room in which it originated.

I submit this as a cheap provision for keeping in safety a great quantity of very important state papers, and at the same time relieving the handsome and costly buildings occupied by the executive departments of a considerable portion of the matter stored in them, which occupies such costly space needed for the transaction of daily business.

When, at some future time, the rooms in the building are all filled with records of the government, the court-yard, containing within 25 feet of its pavement 1,321,475 cubic feet of space, can be roofed with iron, lighted by gable windows and by sky-lights, and fitted with shelving and cases in four tiers of seven feet in height.

This, leaving passages for free access to every package of papers, will nearly double the storage space in the building, and will do this at an insignificant cost—that of roof and cases alone.

BARRACKS AND QUARTERS.

During the fiscal year the construction of 104 new buildings was authorized, at a total estimated cost of \$227,463. They comprise barracks,

officers' quarters, public storehouses, guard-houses, magazines, &c., and are at military posts in California, Kansas, Missouri, Nebraska, Minnesota, Texas, Rhode Island, New York, Connecticut, Virginia, Maryland, Pennsylvania, North Carolina, South Carolina, Florida, Arkansas, and Kentucky, and in the Territories of Arizona, Idaho, Washington, Indian, Wyoming, Dakota, Montana, New Mexico, and District of Columbia.

Repairs of wharves were authorized to the amount of \$18,393.

The expenditures for construction and repairs of buildings have been distributed as follows :

Department of Arizona	\$23,715 00	
Department of California	61,820 00	
Department of Columbia	54,151 00	
	<hr/>	
Total Division of the Pacific		\$139,686 00
Department of the Missouri	71,066 00	
Department of the Platte	15,646 00	
Department of Dakota	36,102 00	
Department of Texas	64,422 00	
	<hr/>	
Total Division of the Missouri		186,236 00
Department of the South	37,758 00	
Department of the East	153,712 00	
	<hr/>	
Total Division of the Atlantic		191,470 00
	<hr/>	
Grand total		517,392 00

In addition to these expenditures, the following new posts, &c., have been authorized :

In January and March, 1879, \$4,600 were authorized for sheltering troops on the North Fork of the Canadian River, in the Indian Territory.

In June, 1879, the commanding general Division of the Pacific was authorized to use any spare barracks and quarters money in his division that he might have, to commence a new four-company post at or near Lake Chelan, Northern Washington Territory; \$20,000 have since been allotted towards building it.

SPECIAL BUILDING PROJECTS AUTHORIZED BY CONGRESS.

In Army bill approved June 18, 1878, \$100,000 was appropriated for building a military post near the northern boundary of the Territory of Montana, in the vicinity of the point where the Milk River crosses said boundary from the Dominion of Canada. This is to be a six-company post, and known as Fort Assinaboine.

In same bill Congress appropriated \$100,000 for building a military post near the Black Hills, in either of the Territories of Wyoming or Dakota.

This post has been located on Bear Butte Creek, Dakota. It is to be a ten-company post, and to be known as Fort Meade.

In same bill Congress appropriated \$60,000 for storehouses and offices at Omaha, Nebraska.

In Army bill approved June 23, 1879, \$30,000 was appropriated for construction of storehouse and depot building, provided site is donated to the United States, at Omaha.

In sundry civil bill, approved June 20, 1878, \$13,500 was appropriated for building operations at Fort Leavenworth military prison.

In same bill Congress appropriated "for repair and erection of barracks at Fort Monroe, Va., \$25,000."

In similar bill for present year, an additional appropriation of \$34,000 is made to complete that work.

In sundry civil bill of March 3, 1879, \$40,000 is appropriated for the establishment of a new post in the vicinity of Pagosa Springs, Colorado. This is to be a four-company post, and known as Fort Lewis.

By act approved February 4, 1879, \$40,000 was appropriated for purchase of ground and establishment of a military post at El Paso, Tex. This post is to be known as New Fort Bliss.

In sundry civil bill approved March 3, 1879, \$25,000 was appropriated for rebuilding eight sets of officers' quarters at Madison Barracks, N. Y.

In same bill Congress appropriated \$100,000 for requisite department headquarters buildings at Fort Snelling, Minn.

In Army bill approved June 23, 1879, Congress appropriated \$50,000 for the construction of a military post near the Niobrara River, in Northern Nebraska.

HOSPITALS.

Construction, repairs, and alterations of military hospitals to the amount of \$74,987 were authorized during the year.

SALES OF BUILDINGS.

Four buildings and the remnants of two wharves were ordered to be sold during the year.

PURCHASE OF MILITARY SITES IN TEXAS.

None of the sites of military posts in Texas, for purchase of which the War Department has for years asked Congress to make provision, have been acquired under the conditions of the act of 3d March, 1875.

That act so limited the powers and the appropriation it granted that the War Department has been unable to procure consent of any of the owners of the land in question.

In the mean time they increase their demand for rent upon the expiration of each lease, which, under the laws governing contracts, can be made only for one year at a time.

For particulars on this subject I beg to refer to my last annual report. No progress has been made, and I apprehend that none will be made until Congress sees fit to trust the War Department with some discretion in the matter of their purchase.

When Congress appropriated \$10,000 to purchase the site of Fort Duncan, the owner demanded \$10,358. The law forbidding the payment of more than 10,000, he leased the land to the United States at a rent of \$2,400 a year and advanced his selling price to \$20,000. Subsequently he increased this price to \$30,000, and refuses to name a price at which he will now sell.

LOSSES BY FIRE.

Twelve fires were reported during the year.

On July 9, 1878, carpenter's shop, &c., destroyed at Fort McPherson, Nebr.

On July 13, 1878, carpenters' shop, &c., destroyed at Fort A. Lincoln, Dak.

On October 27, 1878, three sets officers' quarters destroyed at Fort Whipple, Arizona Territory.

On October 29, 1878, ice-house destroyed at Fort Dodge, Kans.

On November 3, 1878, stables destroyed at Fort Leavenworth, Kans.

On November 6, 1878, two sets of officers' quarters destroyed at Fort Missoula, Montana Territory.

On December 8, 1878, post traders' store, &c., destroyed at Fort McHenry, Md.

On December 14, 1878, one set officers' quarters destroyed at Camp Independence, Cal.

On December 24, 1878, two sets officers' quarters destroyed at Fort Keogh, Mont.

On December 31, 1878, one set officers' quarters destroyed at Fort McHenry, Md.

On January 4, 1879, headquarters offices partially destroyed at Chicago, Ill.

On March 6, 1879, Battery B quarters partially destroyed at Fort McHenry, Md.

SAN ANTONIO DEPOT.

The extension of the second story of the south front of this building, to provide additional office-rooms for the headquarters of the Department of Texas, has been completed, at a cost of \$19,952.

The rooms will be useful, although Congress in effect has now repealed the law compelling headquarters of military departments and divisions to move away from the popular centers of business and intelligence and go to military posts, at no one of which, when the attempt to execute the order was made, were found in existence sufficient quarters for the accommodation of the business and the *personnel* of headquarters.

The expenditure in building thus far incurred or authorized, and to be incurred, on account of the removal of such headquarters, may be estimated as follows :

Alterations in old buildings and erection of new buildings at Governor's Island, New York Harbor.....	\$55,000
Estimated cost of buildings already erected or buildings needed, and for which estimates have been sent in for the new recruiting depot on David's Island, caused by the occupation of the former recruiting depot on Governor's Island as the headquarters Division of the Atlantic and Department of the East.....	184,000
Same at Fort Snelling, Minn.....	299,000
Same at Omaha, Nebr.....	14,000
Same at San Antonio, Tex.....	116,000
Same at Presidio, San Francisco, Cal.....	54,000
	856,000

MILITARY RESERVATIONS DECLARED.

Four military reservations have been declared, viz: December 18, 1878, Fort Meade, Dakota Territory; January 28, 1879, Fort Lewis, Colo.; April 28, 1879, Camp Sheridan, Nebr.; June 10, 1879, Fort Missoula, Montana Territory.

CLOTHING, CAMP AND GARRISON EQUIPAGE.

The expenditure on account of clothing and equipage of the Army during the fiscal year was.....	\$862,620 71
The balance in the Treasury undrawn 30th June, 1879, was.....	127,676 67
Total.....	990,297 38
Of this sum the annual appropriation for the fiscal year was.....	900,000 00
Credits from sales to officers and of issues to soldiers in excess of the allowance.....	90 297 38

The greater part of the \$127,676.67 remaining in the Treasury on the 30th June will be consumed by fulfillment of contracts existing and not completed at expiration of fiscal year.

The depot at San Francisco was, by General Order No. 75, A. G. O., 1878, created a general depot of the Quartermaster's Department, but authority over it, so far as relates to the Division of the Pacific, was in the order reserved to the major general commanding on the Pacific Coast. It has been fully organized under the command of Maj. R. N. Batchelder, an officer of ability and of experience with troops both in war and peace. The working of the depot is satisfactory.

The manufacturers on the Pacific coast, to whom certain advantages are secured by act of Congress, are better content to deal with officers directly representing the War Department and stationed among them.

I fear that the improvement in the quality of the clothing of the Army has been carried almost too far in regard to woolen cloths or kerseys. Officers and soldiers have been educated to demand perfect uniformity in color of their clothing and to complain of the least departure from the shade of the standard material.

Of late heavy losses have been caused to contractors, occasioned by the rejection for color of light blue kerseys, such as the trousers of the troops are made of.

There can be no question of the desire and intention of manufacturers who have bound themselves by contract and invested large capital in the purchase of the material to comply with their contracts, but there is some practical difficulty not yet overcome in securing a uniform shade of light blue with an indigo dye. Materials perfectly satisfactory, except in color, and which were of good color, have, to the great regret of this department and to the great loss of manufacturers, been rejected because the color, though good, differed so much from that of the standard that, if worn in ranks on parade or on review, it would not be uniform.

Formerly, neither officers, soldiers, nor this department insisted upon such exact uniformity; but, as stated above, the eyes of officers and soldiers have been educated till they will not tolerate any difference distinguishable in ranks on parade.

Under the law of March 3, 1879, which requires the Secretary of War to have such supplies for the Army as can be economically made at the military prison at Fort Leavenworth manufactured at that establishment, all the boots and shoes for the Army are made there; chairs for use in barracks are made at the same place, and preparations have been ordered for beginning the manufacture of military harness.

Whether it will be economical to abandon the contract system in the supply of wagons and ambulances for the Army in favor of convict labor at the military prison is at this time the subject of study.

The military prison has furnished during the year 40,000 tent pins, 7,777 barrack chairs, and 51,756 pairs shoes.

The materials for these shoes cost \$1.69½ per pair; prisoners' labor 7½ cents per pair, making the total cost \$1.77½ per pair. The chairs cost 95½ cents each.

NATIONAL MILITARY CEMETERIES.

The number of recognized national military cemeteries is now eighty. The Custer battle-field, on the Little Big Horn, in Montana, was announced as a national cemetery by War Department General Orders 78, August 1, 1879.

A granite block, on which have been inscribed the names of all who fell on that field contending against a savage enemy, has been prepared and is now on its way, via the great lakes and the Northern Pacific Railroad and the Missouri River, to its destination. The stone is simple

in form, but it is massive and heavy enough to remain for ages where placed—a landmark of the conflict between civilization and barbarism.

Ten superintendents have been appointed during the year, all honorably discharged disabled soldiers, who have first passed the required examination. Three superintendents have died, three have resigned, and one has been discharged during the year.

Henry Fowler, superintendent of the Chalmette Cemetery, New Orleans, La., died of yellow fever. Civil Engineer S. M. Robbins fell by the same pestilence while on duty at Baton Rouge, La. This year, the superintendents were notified early that if they were threatened by an outbreak of yellow fever, permission to change their location during the prevalence of the disease would be granted. Only one has found it necessary to avail himself of this permission; the superintendent of the Memphis cemetery.

The number of interments in all the national military cemeteries is 318,455, of which 170,960 are known and 147,495 are unknown.

All the soldiers' graves in national military cemeteries have now been marked with durable headstones of marble, generally; a few, however, are of granite.

Under the act of 3d of February, 1879, contracts for marking with marble headstones the graves of Union soldiers of the late war who have been buried in village or private cemeteries have been awarded to the lowest bidders who complied with the conditions of the advertisement by giving sufficient security.

D. W. Whitney is the contractor for the greater portion of the work, at prices from \$1.99 to \$2.38 each grave, according to distance from quarry and difficulty of access. For the remainder of the work S. G. Bridges was the successful bidder, at \$2.25 for graves in the State of Ohio, and \$2.60 for all others not awarded to Whitney. It is estimated that the average cost of the headstones will be \$2.28 each, set up in place.

Extensive inquiries have been made by letters, circulars, and through the columns of the public press, as to the location of graves needing such monuments and entitled thereto under the law. Thousands of replies have been received and are still reaching this office. It is not probable that any headstones can be erected under these contracts before the opening of the next season.

The cemeteries are reported in good order.

With the consent and approval of the Secretary of War, the six columns of the ancient portico of the War Department, demolished during the early part of this season to make room for the magnificent building now being erected on its site, were removed to the Arlington Cemetery, where they have been used in decorating two of the principal gateways of this extensive and beautiful cemetery.

The middle gate has four of the columns, with entablature. The north-east gate has two of the columns with no entablature; these two will be crowned by funeral vases.

This has preserved these historic columns, among which have moved the chief soldiers of the Army and the chiefs of the War Department during the last sixty years, and they have furnished very handsome gates to the principal cemetery.

There are 208 acres in this cemetery, and a very large space is and will remain unoccupied by military interments. I suggest, therefore, that the attention of Congress be invited to the propriety of making this the National Public Cemetery, and authorizing the interment therein of

any public officer, Senator or Member of Congress dying in office in this vicinity or elsewhere, whose friends may desire such a place of burial for him. The present Congressional Cemetery is, I understand, a private burying ground, in which the government owns some lots. The city is moving towards it, and the practice of modern civilization is to forbid interments of the dead within the limits of a city and near the habitations of the living.

The road from Georgetown to the Arlington Cemetery is badly constructed, and it is very desirable that it be improved, for which purpose, as for the road between Vicksburg and the national cemetery near that city, a small appropriation is needed. An expenditure of \$10,000 would effect this and facilitate the progress of many pilgrims to the graves of their relatives, and the visits of many citizens who wish to see this home of the dead of the last great civil contest.

The appropriation granted for the road to the Vicksburg Cemetery was \$7,000. The original estimate and request was for \$13,000. The road has been partly constructed, and it is hoped that Congress will see fit to grant the remainder of the sum necessary to complete it, viz, \$6,000.

Under the provisions of the sundry civil bill, approved June 20th, 1878, making appropriation of \$1,500 for protection and care of the war prisoners' cemetery on Johnson's Island, Lake Erie, near Sandusky, efforts have been made to procure a conveyance of the land to the United States. The owner has refused to part with the title, which the law made a condition preliminary to any expenditure for improvement, unless under the following conditions: that if at any time the government should cease to keep the lot in good condition, or cease to use it for cemetery purposes alone, it should revert to the present owner, and that some one, to be designated by the said owner, his heirs or assigns, should be appointed to have charge of it at all times.

The expenditures upon the care and improvement and completion of the cemeteries, other than for marble headstones, during the year, have amounted to \$140,140.47. The expenditures for headstones, under the contracts, have been \$480.

The cemeteries are reported in good order, and gradually, under careful cultivation, improving in beauty.

The reports of officers on duty in this office, with many statements and tables, are hereto appended. They give full and clear accounts of all operations of this department during the fiscal year, of sufficient importance to be placed on record in a communication to Congress.

To their zealous and cheerful and intelligent aid is due the success with which the Quartermaster-General's Office has met the innumerable demands upon the resources of the department.

They are Bvt. Maj. Gen. S. Van Vliet, colonel and assistant quartermaster-general; Bvt. Brig. Gen. J. D. Bingham, lieutenant-colonel and deputy quartermaster-general; Lient. Col. H. C. Hodges, deputy quartermaster-general; Bvt. Lient. Col. J. M. Moore, major and quartermaster; and Bvt. Lient. Col. A. F. Rockwell, captain and assistant quartermaster, who has had charge of all the business of the office relating to the national cemeteries.

Respectfully submitted.

M. C. MEIGS,

Quartermaster-General, Brevet Major-General, U. S. A.

Hon. GEORGE W. McCRARY,
Secretary of War.

List of papers accompanying the annual report of the Quartermaster-General for the fiscal year ending June 30, 1879.

1. Financial report.
2. Report of Col. Stewart Van Vliet, assistant quartermaster-general, United States Army, of the inspection branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1879.
 - A.—Report of officers of the Quartermaster's Department for the fiscal year.
 - B.—Report of stations and duties of officers of the Quartermaster's Department.
 - C.—List of officers on duty as acting assistant quartermasters, and of the stations at which they have served during the fiscal year.
3. Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general, United States Army, of the operations of the accounts branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1879.
4. Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general, United States Army, of the operations of the clothing branch of the Quartermaster-General's office during the fiscal year ending June 30, 1879.
 - A.—Statement of articles of clothing and equipage on hand June 30, 1879, the quantities purchased, manufactured, gained, sold, expended, and issued to the Army during the year, and the quantity on hand June 30, 1879.
 - B.—Statement of remittances on account of clothing, camp and garrison equipage during the fiscal year ending June 30, 1879.
 - C.—Statement of amounts received and expended by the Quartermaster's Department on account of clothing, camp and garrison equipage during the fiscal year ending June 30, 1879.
 - D.—Specifications for articles of clothing, camp and garrison equipage adopted and amended during the fiscal year ending June 30, 1879.
 - E.—Statement showing quantity of clothing issued to the National Home for Disabled Volunteers, under the act of January 20, 1873, during the fiscal year ending June 30, 1879.
 - F.—Statement showing articles of clothing, camp and garrison equipage issued by the Quartermaster's Department to certain Indians, also the money value of the articles, during the fiscal year ending June 30, 1879.
 - G.—Statement of clothing, camp and garrison equipage turned over to the military prison at Fort Leavenworth, Kansas, for issue to prisoners, during the fiscal year ending June 30, 1879.
 - H.—Statement showing number of tents issued by the Quartermaster's Department for the relief of yellow-fever sufferers during the fiscal year ending June 30, 1879, also the money value of same.
 - I.—Copy of correspondence regarding the manufacture of clothing by the Navy Department, according to the system prevailing at the Philadelphia depot of the Quartermaster's Department.
 - K.—Copy of correspondence regarding the manufacture of materials for clothing of 3-4 instead of 6-4 of a yard wide.
 - L.—Extract from the annual report of Capt. John F. Rodgers, military storekeeper, United States Army, at the Philadelphia depot of the Quartermaster's Department, for the fiscal year ending June 30, 1879.
 - M.—Statement of returns of clothing, camp and garrison equipage received and examined, and of letters received and written, during the fiscal year ending June 30, 1879.
 - N.—Statement of the clerical force employed in the clothing and equipage branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1879.
5. Report of Lieut. Col. Henry C. Hodges, deputy quartermaster-general, United States Army, of the operations of the Quartermaster-General's Office pertaining to transportation, indebted railroads, regular and miscellaneous supplies, and miscellaneous claims, during the fiscal year ending June 30, 1879.
 - A.—Statement of all troops and property transported under direction of the Quartermaster's Department during the fiscal year ending June 30, 1879.
 - B.—Statement showing principal movements of troops during the fiscal year, and average length of march or movement in each case.
 - C.—Correspondence regarding suspended land-grant railroad accounts, including decision of the Second Comptroller as to his interpretation of the law of March 3, 1879, relating thereto.
 - D.—Ex. Doc. No. 28, Forty-fifth Congress, third session, parts 1 and 2, containing views of the Quartermaster-General regarding land-grant railroads as they affect the Quartermaster's Department.
 - E.—Abstract of contracts made by officers of the Quartermaster's Department for wagon transportation during the fiscal year.
 - F.—Abstract of contracts made by officers of the Quartermaster's Department for water transportation during the fiscal year.

G.—Statement of vessels owned and purchased by the Quartermaster's Department during the fiscal year.

H.—Statement of vessels chartered, impressed, and employed in the Quartermaster's Department during the fiscal year.

I.—Statement of the indebtedness of railway companies for railway material, &c., purchased of the United States for the fiscal year.

K.—Specifications for travaux.

L.—Special report of transportation, animals, vehicles, and men employed, &c., at San Antonio depot and post.

6. Report of Maj. J. M. Moore, quartermaster, United States Army, of the operations of the barracks and quarters branch of the Quartermaster-General's Office for the fiscal year ending June 30, 1879.

7. Report of Maj. J. M. Moore, quartermaster, United States Army, of the operations of the claims branch, Quartermaster-General's Office, for the fiscal year ending June 30, 1879.

8. Report of Capt. A. F. Rockwell, assistant quartermaster, United States Army, of the affairs relating to the care and maintenance of national military cemeteries for the fiscal year ending June 30, 1879.

A.—Statement of disbursements on account of national cemeteries during the fiscal year ending June 30, 1879.

No. 2.—*Report of Assistant Quartermaster-General Stewart Van Vliet.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., October 2, 1879.

GENERAL: I have the honor to submit a report of the operations of the inspection branch of this office during the fiscal year ending June 30, 1879.

The duties of this branch are principally as follows:

Keeping narrative reports of stations and duties of all officers who perform duties in the Quartermaster's Department.

Examining, and preparing for such action as may be requisite, communications on assignments of officers, annual reports, &c.

The filing and distribution of orders, circulars, rolls of honor, and other printed documents, and replying to communications in regard to same.

Preparing monthly returns of officers of the Quartermaster's Department for the Adjutant-General's Office.

Keeping books of "letters received" and "letters sent," relating individually to officers, agents, and employés of the department.

Examining requests for newspapers and other periodicals for post libraries, and ordering subscriptions for and keeping account of same, under the provisions of General Orders Nos. 24 and 14, Adjutant-General's Office, series of 1878-'79. Four thousand one hundred and sixty-one dollars and seventy-eight cents' worth of miscellaneous literature, such as Harper's and Frank Leslie's publications, scientific journals, reviews, and the more prominent daily and weekly political papers, having been ordered for the different posts who have asked for them, the subscriptions have been made and paid for by the depot quartermasters in New York City and Washington. The expenditure of \$103.81 has been ordered for school-books under the provisions of General Orders No. 14, Adjutant-General's Office, of 1879.

About 4,472 letters have been received, briefed, and entered, and 450 letters written and sent, not including upwards of 900 letters on miscellaneous subjects written and sent, which are recorded in the miscellaneous branch of the office.

The attention of the Quartermaster-General is invited to statement

No. 9 of the annual report for last fiscal year, embodying the opinions of such officers serving in the Quartermaster's Department as reported as to the advisability of enacting a law providing for the appointment of post-quartermaster sergeants. Twenty-nine officers have recommended the enactment of such a law in their annual reports for this fiscal year.

The following is a statement of the number of orders, circulars, books, and pamphlets received and distributed during the fiscal year:

Designation.	Number received.	Number distributed.
General Orders, Quartermaster-General's Office.....		400
General Orders, Adjutant-General's Office	56,000	40,000
General Court-Martial Orders.....	25,200	18,900
Circulars	7,100	4,800
Rolls of Honor.....		800
Miscellaneous books and pamphlets.....	3,877	3,211
Total	91,977	68,111

I inclose herewith list of officers on duty in the Quartermaster's Department, showing their stations, period of service, &c., during the fiscal year.

Very respectfully, your obedient servant,

STEWART VAN VLIET,
Assistant Quartermaster-General, U. S. A.

The QUARTERMASTER-GENERAL OF THE ARMY.

A.—Annual report of officers of the Quartermaster's Department for the fiscal year ending June 30, 1879.

No.	Name and grade.	Rank.	Duties, &c.
QUARTERMASTER-GENERAL.			
1	Montgomery C. Meigs	Brigadier-general and brevet major-general	In charge of the Quartermaster's Department at Washington, D. C. ; from August 13 to September 10 and from November 4 to 19, 1878, temporarily absent.
ASSISTANT QUARTERMASTERS-GENERAL.			
1	Daniel H. Rucker	Colonel and brevet major-general	In charge of the Philadelphia depot of the Quartermaster's Department at Philadelphia, Pa.
2	Rufus Ingalls	Colonel and brevet major-general	Chief quartermaster Military Division of the Missouri, at Chicago, Ill. ; on October 28, 1878, also assigned depot quartermaster ; from November 9 to December 2, 1878, absent on special duty.
3	Langdon C. Easton	Colonel and brevet major-general	In charge of the general depot of the Quartermaster's Department at New York City to August 9, 1878 ; also chief quartermaster Military Division of the Atlantic.
4	Stewart Van Vliet	Colonel and brevet major-general	Inspector in the Quartermaster's Department, and on duty in the Quartermaster-General's Office from August 13 to September 10 and from November 4 to 19, 1878 ; also Acting Quartermaster-General ; from January 27 to March 2, 1879, absent on inspection duty.
DEPUTY QUARTERMASTERS-GENERAL.			
1	Sammuel B. Holabird	Lieutenant-colonel and brevet brigadier-general	Chief quartermaster Military Division of the Pacific and Department of California, at Presidio of San Francisco, Cal.
2	Charles H. Tompkins	Lieutenant-colonel and brevet brigadier-general.	Chief quartermaster Department of Dakota, at Saint Paul, Minn. ; from November 9 to December 2, 1878, acting chief quartermaster Military Division of the Missouri, at Chicago, Ill.
3	James A. Ekin	Lieutenant-colonel and brevet brigadier-general	In charge of depot and investigating claims at Jeffersonville, Ind. ; also disbursing officer of the Quartermaster's Department at Louisville, Ky. ; and in charge of national cemeteries in Kentucky and Tennessee.
4	Asher R. Eddy	Lieutenant-colonel and brevet colonel	To January 27, 1879, on leave of absence in Europe ; died January 27, 1879, at Malta.
5	Rufus Saxton	Lieutenant-colonel and brevet brigadier-general.	Chief quartermaster Department of the Missouri, at Fort Leavenworth, Kans. ; from May 13 to June 17, 1879, on leave of absence.
6	Judson D. Bingham	Lieutenant-colonel and brevet brigadier-general	On duty in the Quartermaster-General's Office, Washington, D. C.
7	Alexander J. Perry	Lieutenant-colonel and brevet brigadier-general	Chief quartermaster Department of the East, at Governor's Island, New York Harbor ; on August 9, 1878, also assigned chief quartermaster Military Division of the Atlantic.
8	Henry C. Hodges	Lieutenant-colonel	On duty in the Quartermaster-General's Office, Washington, D. C. ; from November 26 to December 6, 1878, absent on special duty.
QUARTERMASTERS.			
1	John G. Chandler	Major and brevet colonel	Chief quartermaster Department of the South, at Newport Barracks, Ky. ; June 2, 1879, promoted to the grade of deputy quartermaster-general, with rank of lieutenant-colonel, to date from March 4, 1879.
2	William Myers	Major and brevet brigadier-general	To August 20, 1878, in charge of depot at San Francisco, Cal. ; thenceforward on leave of absence.

A.—Annual report of officers of the Quartermaster's Department for the fiscal year ending June 30, 1879—Continued.

No.	Name and grade.	Rank.	Duties, &c.
3	Charles G. Sawtelle.....	Major and brevet brigadier-general.....	Chief quartermaster Department of the Columbia, at Fort Vancouver, Wash. To November 16, 1878, in charge of clothing depot at Philadelphia, Pa.; to December 6, 1878, <i>en route</i> ; thenceforward chief quartermaster District of New Mexico, at Santa Fé, N. Mex.
4	James J. Dana.....	Major and brevet brigadier-general.....	
5	Joseph A. Potter.....	Major and brevet brigadier-general.....	To April 21, 1879, engaged in the settlement of his accounts and awaiting orders at Painesville, Ohio; April 21, 1879, retired from active service.
6	Richard N. Batchelder.....	Major and brevet colonel.....	To November 7, 1878, on duty in the Quartermaster-General's Office, at Washington, D. C.; to November 15, 1878, <i>en route</i> ; thenceforward in charge of the general depot of the Quartermaster's Department and disbursing quartermaster at San Francisco, Cal.
7	Marshall I. Ludington.....	Major and brevet lieutenant-colonel.....	Chief quartermaster Department of the Platte, at Omaha Barracks, Nebr. To October 28, 1878, purchasing and disbursing quartermaster at Chicago, Ill.; to November 24, 1878, transferring property and <i>en route</i> ; thenceforward on duty in the Quartermaster-General's Office at Washington, D. C.
8	James M. Moore.....	Major and brevet lieutenant-colonel.....	
9	James Belger.....	Major.....	To November 15, 1878, post quartermaster at Atlanta, Ga.; to December 31, 1878, transferring property and <i>en route</i> ; to June 19, 1879, depot and post quartermaster at Fort Union, N. Mex.; June 19, 1879, retired from active service.
10	Benjamin C. Card.....	Major and brevet brigadier-general.....	Chief quartermaster Department of Texas, at San Antonio, Tex. To July 3, 1878, depot quartermaster at Vancouver, Wash.; to September 30, 1878, in charge of settlement of Nez Percés war claims, at Portland, Oreg.; to October 17, 1878, <i>en route</i> ; thenceforward disbursing quartermaster at Buffalo, N. Y.
11	Charles A. Reynolds.....	Major and brevet lieutenant-colonel.....	
12	George B. Dandy.....	Major and brevet brigadier-general.....	To August 24, 1878, disbursing quartermaster at Buffalo, N. Y.; to September 21, 1878, transferring property and <i>en route</i> ; thenceforward purchasing and shipping quartermaster at Portland, Oreg.
13	George H. Weeks.....	Major and brevet lieutenant-colonel.....	Chief quartermaster Department of Arizona, at Prescott Barracks, Ariz.; to May 22, 1879, also depot and disbursing quartermaster at Whipple Depot, Ariz.
14	William B. Hughes.....	Major.....	To January 9, 1879, receiving and shipping supplies at Yankton, Dak; thenceforward depot quartermaster at Saint Louis, Mo.
ASSISTANT QUARTERMASTERS.			
1	Augustus G. Robinson.....	Captain and brevet major.....	To May 6, 1879, post quartermaster at Boston, Mass.; thenceforward under orders to delay reporting for duty in Military Division of the Missouri; on June 12, 1879, promoted to the grade of quartermaster, with rank of major, to date from March 4, 1879.
2	Edward D. Baker.....	Captain.....	Depot quartermaster at Bismarck, Dak., to December 20, 1878; also post quartermaster at Fort A. Lincoln, Dak.; June 12, 1879, promoted to the grade of quartermaster with rank of major, to date April 21, 1879.
3	Henry W. Janes.....	Captain and brevet lieutenant-colonel.....	To October 26, 1878, chief quartermaster District of Montana, at Helena, Mont.; thenceforward under medical treatment at Government Hospital for Insane at Washington, D. C.; June 26, 1879, promoted to the grade of quartermaster with rank of major, to date June 19, 1879.
4	James G. C. Lee.....	Captain and brevet lieutenant-colonel.....	To May 20, 1879, depot quartermaster at Saint Paul, Minn.; thenceforward in charge of construction at Fort Assinaboine, Mont.

5	James Gilliss	Captain.....	In charge of depot at Cheyenne, Wyo.
6	Theodore J. Eckerson.....	Captain and brevet major.....	Post quartermaster and chief and disbursing quartermaster District of the Rio Grande, at Fort Brown, Tex.
7	Andrew J. McGonnigle.....	Captain and brevet lieutenant-colonel.....	In charge of depot at New Orleans, La.
8	Edward B. Grimes	Captain and brevet major.....	To January 15, 1879, depot quartermaster at Saint Louis, Mo.; to February 7, 1879, transferring property and <i>en route</i> ; thenceforward depot quartermaster at Yankton, Dak.
9	James W. Scully.....	Captain and brevet colonel	To October 26, 1878, post quartermaster at Charleston, S. C.; thenceforward engaged in the settlement of his accounts at Washington, D. C.; from February 14 to March 10, 1879, transferring property at Charleston, S. C.
10	William T. Howell.....	Captain and brevet major.....	To April 30, 1879, post quartermaster at Fort Sill, Ind. T.; thenceforward post quartermaster at Ogden, Utah.
11	Charles W. Foster	Captain and brevet colonel.....	To May 31, 1879, depot quartermaster at Ogden, Utah; to June 10, 1879, <i>en route</i> ; thenceforward post quartermaster at Fort Adams, E. I.
12	George W. Bradley.....	Captain.....	To December 12, 1878, in charge of clothing depot at San Francisco, Cal.; to January 6, 1879, <i>en route</i> ; thenceforward depot quartermaster at San Antonio, Tex.
13	Simon F. Barstow.....	Captain and brevet lieutenant-colonel.....	To May 15, 1879, post quartermaster at Saint Augustine, Fla.; to June 7, 1879, waiting action of retiring-board, when retired from active service; from July 5 to November 28, 1878, absent on surgeon's certificate.
14	John H. Belcher	Captain and brevet major.....	To November 23, 1878, chief quartermaster District of New Mexico at Santa Fé, N. Mex.; to December 18, 1878, <i>en route</i> ; thenceforward post quartermaster at Charleston, S. C.
15	Ezra B. Kirk	Captain.....	Depot and post quartermaster at Fort Buford, Dak.
16	Amos S. Kimball.....	Captain.....	To December 20, 1878, depot and post quartermaster at Fort Union, N. Mex.; to April 26, 1879, post quartermaster at Atlanta, Ga.; thenceforward post quartermaster at Boston, Mass.
17	Almon F. Rockwell	Captain and brevet lieutenant-colonel.....	In charge of Office of National Cemeteries and depot quartermaster at Washington, D. C.
18	Gilbert C. Smith	Captain.....	To March 9, 1879, post quartermaster at Camp Grant, Ariz.; thenceforward post quartermaster and disbursing quartermaster District of Tucson, at Fort Lowell, Ariz.
19	Edward J. Strang	Captain and brevet lieutenant-colonel.....	To October 29, 1878, receiving and forwarding quartermaster at Fort Worth, Tex.; to December 26, 1878, under orders to delay reporting and <i>en route</i> ; thenceforward in charge of depot at Yuma, Ariz.
20	Nathaniel S. Constable.....	Captain.....	To March 31, 1879, post quartermaster at Fort Concho, Tex.; to June 16, 1879, <i>en route</i> ; thenceforward post quartermaster at Fort A. Lincoln, Dak.
21	John V. Farey.....	Captain.....	Depot quartermaster at Omaha, Nebr.
22	Lewis C. Forsyth	Captain and brevet major.....	To June 12, 1879, post quartermaster at Fort Adams, R. I.; thenceforward under orders to delay reporting for duty in the Department of the Columbia.
23	Charles H. Hoyt	Captain.....	Depot quartermaster at Fort Leavenworth, Kans.; from July 25 to September 23, 1878, absent on sick-leave.
24	Asa P. Blunt.....	Captain and brevet colonel.....	Governor of military prison at Fort Leavenworth, Kans.
25	James H. Lord	Captain and brevet major.....	To November 20, 1878, depot quartermaster at Yuma, Ariz.; to December 1, 1878, <i>en route</i> ; thenceforward purchasing officer, &c., at Philadelphia, Pa.
26	James M. Marshall.....	Captain.....	Post quartermaster at Baltimore, Md.
27	Edwin B. Atwood.....	Captain and brevet major.....	To January 7, 1879, depot quartermaster at San Antonio, Tex.; to March 24, transferring property and <i>en route</i> ; to June 8, 1879, post quartermaster at Fort Concho, Tex.; thenceforward post quartermaster at Fort Worth, Tex.
28	John Simpson.....	Captain.....	To July 5, 1878, post quartermaster at Carlisle Barracks, Pa.; thenceforward depot quartermaster at David's Island, New York Harbor.
29	Lafayette E. Campbell.....	Captain.....	Post quartermaster and quartermaster of Artillery School at Fort Monroe, Va.

A.—Annual report of officers of the Quartermaster's Department for the fiscal year ending June 30, 1879—Continued.

No.	Name and grade.	Rank.	Duties, &c.
30	Charles S. Heintzelman	Captain.....	To November 11, 1878, post quartermaster and district quartermaster District of the Yellowstone, at Fort Keogh, Mont.; from December 5, 1878, to March 12, 1879, absent on sick-leave; to May 20, 1879, on special duty connected with erection of military posts in the Department of Dakota; thenceforward on leave of absence on surgeon's certificate.
81	Thomas B. Hunt.....	Captain and brevet lieutenant-colonel.....	On June 12, 1879, he was reappointed captain and assistant quartermaster with his former rank and date of commission; from January 18, 1867, <i>vice</i> Capt. A. G. Robinson, promoted major; under orders for assignment at Fort Union, N Mex.
82	Alonso E. Miltimore	Captain.....	On June 25, 1879, he was appointed assistant quartermaster with rank of captain, to date from June 23, 1879, <i>vice</i> Capt. E. D. Baker, promoted major; awaiting orders.
83	Charles F. Humphrey.....	Captain.....	On June 25, 1879, he was appointed assistant quartermaster with rank of captain, to date from June 23, 1879, <i>vice</i> Capt. S. F. Barstow, assistant quartermaster, retired from active service; awaiting orders.
84	Charles W. Williams.....	Captain.....	Appointed assistant quartermaster with rank of captain, to date from June 30, 1879, <i>vice</i> Capt. H. W. Janes, promoted major; awaiting orders.
MILITARY STOREKEEPERS.			
1	Reuben M. Potter.....	Captain.....	On sick-leave at Brooklyn, N. Y.
2	Charles A. Alligood.....	Captain.....	Acting assistant quartermaster at Fort Wadsworth, New York Harbor.
8	John F. Rodgers.....	Captain.....	In charge of clothing, camp, and garrison equipage, and quartermaster's stores at Philadelphia, Pa.
4	Gustavus A. Hall.....	Captain.....	To October 21, 1878, in charge of clothing and equipage at Fort Leavenworth, Kans.; to December 8, transferring property and <i>en route</i> ; thenceforward in charge of clothing, camp, and garrison equipage, and manufacturing depot at San Francisco, Cal.
5	John Livers.....	Captain.....	In charge of clothing and equipage depot at Omaha, Nebr.
6	Addison Barrett.....	Captain.....	Purchasing officer, &c., at Jeffersonville depot, Jeffersonville, Ind.
7	William P. Martin.....	Captain.....	To August 16, 1878, disbursing funds, &c., at Prescott Barracks, Ariz.; to November 25, 1878, depot and disbursing quartermaster at Tucson, Ariz.; to December 22, <i>en route</i> ; thenceforward in charge of clothing depot at Saint Louis Barracks, Mo.

RECAPITULATION.

Grade.	In service at commencement of fiscal year.	Died.	Gained by promotion.	Retired.	Loss by promotion.	Gained by appointment.	In service at end of fiscal year.
Quartermaster-General with rank of brigadier-general.....	1						1
Assistant quartermasters-general with rank of colonel.....	4						4
Deputy quartermasters-general with rank of lieutenant-colonel.....	8	1	1				8
Quartermasters with rank of major.....	14		3	2	1		14
Assistant quartermasters with rank of captain.....	30			1	3	4	30
Military storekeepers with rank of captain.....	7						7
Total.....	64	1	4	3	4	4	64

B.—Stations and duties of officers of the Quartermaster's Department, July 1, 1879.

QUARTERMASTER-GENERAL'S OFFICE.

Meigs, Bvt. Maj. Gen. M. C., Quartermaster-General; Van Vliet, Bvt. Maj. Gen. Stewart, assistant quartermaster-general; Bingham, Bvt. Brig. Gen. Judson D., deputy quartermaster-general; Hodges, Lieut. Col. Henry C., deputy quartermaster-general; Moore, Bvt. Lieut. Col. James M., quartermaster.

GENERAL DEPOTS ESTABLISHED BY GENERAL ORDERS NO. 32, HEADQUARTERS OF THE ARMY, APRIL 8, 1869.

New York.—Easton, Bvt. Maj. Gen. Langdon C., assistant quartermaster general in charge.

Philadelphia.—Rucker, Bvt. Maj. Gen. Daniel H., assistant quartermaster-general in charge; Rodgers, Capt. John F., military storekeeper; Lord, Bvt. Maj. James H., assistant quartermaster, under orders for duty at Fort Preble, Me.

Washington, D. C.—Rockwell, Bvt. Lieut. Col. Almon F., assistant quartermaster in charge.

Jeffersonville, Ind.—Ekin, Bvt. Brig. Gen. James A., deputy quartermaster-general in charge; Barrett, Capt. Addison, military storekeeper.

San Francisco, Cal.—Batchelder, Bvt. Col. Richard N., quartermaster in charge.

Office of National Cemeteries, Washington, D. C.—Rockwell, Bvt. Col. Almon F. assistant quartermaster in charge.

MILITARY DIVISION OF THE ATLANTIC.

Headquarters Governor's Island, New York Harbor.—Perry, Bvt. Brig. Gen. Alexander J., deputy quartermaster-general, chief quartermaster.

Department of the East.

Headquarters Governor's Island, New York Harbor.—Perry, Bvt. Brig. Gen. Alexander J., deputy quartermaster-general, chief quartermaster; Reynolds, Bvt. Lieut. Col. Charles A., quartermaster, Buffalo, N. Y.; Robinson, Maj. A. G., quartermaster, Boston, Mass., under orders for duty in the Military Division of the Missouri; Foster, Bvt. Col. Charles W., assistant quartermaster, post-quartermaster, Fort Adams, R. I.; Potter, Capt. Reuben M., military storekeeper, Fort Wood, New York Harbor, on sick leave; Allgood, Capt. Charles A., military storekeeper, Fort Wadsworth, New York Harbor; Kimball, Capt. Amos S., assistant quartermaster, post-quartermaster, Boston, Mass.; Marshall, Capt. James M., assistant quartermaster, post quartermaster, Baltimore, Md.; Simpson, Capt. John, assistant quartermaster, David's Island, New York Harbor; Campbell, Capt. L. E., assistant quartermaster, Fort Monroe, Va.

Department of the South.

Headquarters Newport Barracks, Ky.—Chandler, Bvt. Col. John G., deputy quartermaster-general, chief quartermaster; McGonnigle, Bvt. Lieut. Col. Andrew J., assistant quartermaster, depot quartermaster, New Orleans, La.; Belcher, Bvt. Maj. John H., assistant quartermaster, Charleston, S. C.

MILITARY DIVISION OF THE MISSOURI.

Headquarters Chicago, Ill.—Ingalls, Bvt. Maj. Gen. Rufus, assistant quartermaster-general, chief quartermaster; Hughes, Maj. William B., quartermaster, depot-quartermaster, Saint Louis, Mo.; Martin, Capt. William P., military storekeeper, Saint Louis clothing depot, Saint Louis, Mo.

Department of the Missouri.

Headquarters Fort Leavenworth, Kans.—Saxton, Bvt. Brig. Gen. Rufus, deputy quartermaster-general, chief quartermaster; Dana, Bvt. Brig. Gen. James J., quartermaster, chief quartermaster District of New Mexico, Santa Fé, N. Mex.; Hoyt, Capt. Charles H., assistant quartermaster, depot-quartermaster, Fort Leavenworth, Kans.; Blunt, Bvt. Col. Asa P., assistant quartermaster, governor of military prison, Fort Leavenworth, Kans.

Department of the Platte.

Headquarters Fort Omaha, Nebr.—Ludington, Bvt. Lieut. Col. Marshall I., quartermaster, chief quartermaster; Gilliss, Capt. James, assistant quartermaster, Cheyenne Depot, Wyo.; Howell, Bvt. Maj. William T., assistant quartermaster, Ogden, Utah; Livers, Capt. John, military storekeeper, Fort Omaha, Nebr., under orders for duty at Philadelphia, Pa.; Furey, Capt. John V., assistant quartermaster, in charge of depot, Fort Omaha, Nebr.

Department of Dakota.

Headquarters Saint Paul, Minn.—Tompkins, Bvt. Brig. Gen. Charles H., deputy quartermaster-general, chief quartermaster; Baker, Maj. E. D., quartermaster, in charge of depot, Bismarck, Dak.; Lee, Bvt. Lieut. Col. James G. C., assistant quartermaster, Fort Assinaboine, Mont.; Grimes, Bvt. Maj. Edward B., assistant quartermaster, in charge of depot at Yankton, Dak.; Kirk, Capt. Ezra B., assistant quartermaster, depot and post quartermaster, Fort Buford, Dak.; Constable, Capt. Nathaniel S., assistant quartermaster, Fort A. Lincoln, Dak.

Department of Texas.

Headquarters at depot near San Antonio, Tex.—Card, Bvt. Brig. Gen. Benjamin C., quartermaster, chief quartermaster; Eckerson, Bvt. Maj. Theodore J., assistant quartermaster, Fort Brown, Tex., on leave of absence; Bradley, Capt. George W., assistant quartermaster, depot quartermaster, San Antonio, Tex.; Atwood, Bvt. Maj. Edwin B., assistant quartermaster, Fort Worth, Tex.

MILITARY DIVISION OF THE PACIFIC AND DEPARTMENT OF CALIFORNIA.

Headquarters Presidio of San Francisco, Cal.—Holabird, Bvt. Brig. Gen. Samuel B., deputy quartermaster-general, chief quartermaster; Batchelder, Bvt. Col. Richard N., quartermaster, in charge of the general depot of the Quartermaster's Department and disbursing quartermaster, San Francisco, Cal.; Hull, Capt. G. A., military storekeeper, in charge of clothing depot, San Francisco, Cal.

Department of Arizona.

Headquarters Whipple Barracks, Prescott, Ariz.—Weeks, Bvt. Lieut. Col. George H., quartermaster, chief quartermaster; Smith, Capt. Gilbert C., assistant quartermaster, Fort Lowell, Ariz.; Strang, Bvt. Lieut. Col. Edward J., assistant quartermaster, Yuma depot, Ariz.

Department of the Columbia.

Headquarters Vancouver Barracks, Wash.—Sawtelle, Bvt. Brig. Gen. Charles G., quartermaster, chief quartermaster; Dandy, Bvt. Brig. Gen. George B., quartermaster, Portland, Oreg.

MISCELLANEOUS.

Myers, Bvt. Brig. Gen. William, quartermaster, on leave of absence; Janes, Bvt. Lieut. Col. Henry W., quartermaster, ; Forsyth, Bvt. Maj. Lewis C., assistant quartermaster, *en route* for duty in Department of the Columbia; Scully, Bvt. Col. J. W., assistant quartermaster, engaged in the settlement of his accounts at Washington, D. C.; Hunt, Bvt. Lieut. Col. Thomas B., assistant quartermaster, under orders for duty at Fort Union, N. Mex., address, Washington, D. C.; Heintzelman, Capt. Charles S., assistant quartermaster, on sick leave in Europe; Miltimore, Capt. Alonzo E., assistant quartermaster, Fort Preble, Me., awaiting orders; Humphrey, Capt. Charles F., assistant quartermaster, Presidio, San Francisco, Cal., awaiting orders; Williams, Capt. Charles W., assistant quartermaster, Atlanta, Ga., awaiting orders.

C.—List of officers on duty as acting assistant quartermasters, and of the stations at which they have served during the fiscal year ending June 30, 1879.

Name.	Lineal rank and regiment.	Brevet rank.	Station.	Time during year on duty as A. A. Q. M.
Ayres, James C.	1st lt. ord		Fort A. Lincoln, Dak.	Oct. 9, 1878, to June 30, 1879.
Ames, Luther S.	1st lt. 2d Inf		Camp Coeur d'Alene, Idaho.	Jan. 1, 1879, to June 30, 1879.
Adams, John Q.	1st lt. 1st Cav.	Captain	Vancouver Depot, Wash.	Mar. 31, 1879, to June 30, 1879.
Arnold, Isaac, jr. ...	Capt. ord		Indianapolis Arsenal, Ind.	July 1, 1878, to June 30, 1879.
Allen, William	2d lt. 12th Inf.		Camp Thomas, Ariz.	Apr. 2, 1879, to June 30, 1879.
Abbott, A. T.	1st lt. 9d Art.		Madison Barracks, N. Y.	July 1, 1878, to May 1, 1879.
Armstrong, R. G.	1st lt. 1st Inf.		Fort Hale, Dak.	Sept. 30, 1878, to June 30, 1879.
Allison, James N.	2d lt. 2d Cav.		Fort Ellis, Mont.	Dec. 30, 1878, to June 30, 1879.
Andrus, E. P.	2d lt. 5th Cav.		Fort McPherson, Nebr.	Nov. 30, 1878, to June 30, 1879.
Anderson, George L. .	2d lt. 4th Art.		Presidio of San Francisco, Cal.	Oct. 1, 1878, to June 30, 1879.
Booth, Charles A.	1st lt. 1st Inf.		Constructing Military Telegraph Line Department of Arizona.	Nov. 23, 1878, to June 30, 1879.
Baldwin, James H. ...	1st lt. 18th Inf.		Aflanta, Ga.	Oct. 29, 1878, to Jan. 9, 1879.
Do.	do.		Fort Assinaboine, Mont.	May—, 1879, to June 30, 1879.
Bubb, John W.	1st lt. 4th Inf.		Fort McKinney, Wyo.	July 1, 1878, to Nov. 11, 1878.
Barrett, Gregory, jr. .	1st lt. & R. Q. M. 10th Inf.		Fort McKavett, Tex. .	July 1, 1879, to May 7, 1879.
Do.	do.		Fort Wayne, Mich. .	May 27, 1879, to June 30, 1879.
Barnard, Phineas P. .	1st lt. 5th Cav.	Captain	Fort McKinney, Wyo.	Nov. 11, 1878, to June 30, 1879.
Bird, Charles	1st lt. 23d Inf.	Lt. col.	Fort Columbus, N. Y. .	July 1, 1878, to June 30, 1879.
Burnham, David R. .	1st lt. 3d Inf.		Fort Bayard, N. Mex. .	Do.
Balance, John G.	2d lt. 22d Inf.		Fort Mackinac, Mich. .	July 1, 1878, to Nov. 30, 1878.
Do.	do.		Fort Gibson, Ind. Ter.	May 22, 1879, to June 30, 1879.
Baily, Charles M.	1st lt. & R. Q. M. 8th Inf.		Benicia Barracks, Cal.	Sept. 22, 1878, to June 30, 1879.
Burns, J. M.	1st lt. 17th Inf.		Fort Sisseton, Dak. .	July 1, 1878, to Feb. 28, 1879.
Badger, William	1st lt. 6th Inf.		Fort Rice, Dak.	July 1, 1878, to Nov. 29, 1878.
Baldwin, John A.	2d lt. 9th Inf.		Fort Sidney, Nebr. .	July 1, 1878, to Mar. 15, 1879.
Brinkerhoff, H. R. .	Capt. 15th Inf.		Columbus Barracks, Ohio.	July 1, 1878, to Oct. 10, 1878.
Bean, John W.	1st lt. 15th Inf.		Fort Garland, Colo. .	July 1, 1878, to Apr. 30, 1879.
Brush, Daniel H.	1st lt. 17th Inf.		Fort Snelling, Minn. .	July 1, 1878, to Oct. 21, 1878.
Bonesteel, Charles H. .	2d lt. 21st Inf.		Fort Harney, Oreg. .	July 1, 1878, to Aug. 26, 1878.
Bartlett, W. C.	1st lt. 3d Inf.		Fort Logan, Mont. .	Oct. 31, 1878, to June 30, 1879.
Bottsford, Charles E. .	1st lt. 10th Inf.		Fort Griffin, Tex.	July 1, 1878, to May 30, 1879.
Blockson, A. P.	2d lt. 6th Cav.		Camp Thomas, Ariz. .	July 1, 1878, to July 16, 1878.
Bishop, John S.	1st lt. 13th Inf.		Baton Rouge, La.	July 1, 1878, to May 31, 1879.
Budd, O. W.	1st lt. 4th Cav.		Fort Supply, Ind. Ter.	July 3, 1878, to Mar. 20, 1879.
Bishop, H. S.	2d lt. 6th Cav.		Fort Washakie, Wyo. .	July 1, 1878, to June 30, 1879.
Bancroft, E. A.	Capt. 4th Art.		Fort Townsend, Wash.	July 1, 1878, to Sept. 11, 1878.
Bailey, Albert S.	2d lt. 6th Cav.		Camp Huachuca, Ariz.	Nov. 11, 1878, to June 30, 1879.
Benson, Henry M.	1st lt. 7th Inf.		Fort Snelling, Minn. .	Dec. 8, 1878, to Mar. 6, 1879.
Baldwin, William H. .	2d lt. 7th Cav.		Fort A. Lincoln, Dak. .	Jan. 14, 1879, to Feb. 1, 1879.
Baldwin, John M.	2d lt. 6th Art.		Newport Barracks, Ky.	Mar. 31, 1879, to June 1, 1879.
Bailey, Edward L.	1st lt. 4th Inf.	Lt. col.	Fort Sanders, Wyo. .	Apr. 1, 1879, to June 1, 1879.
Bonus, Peter S.	1st lt. 1st Cav.		In the field—Department of the Columbia.	May 15, 1879, to June 30, 1879.
Buck, William L.	2d lt. 13th Inf.		Newport Barracks, Ky.	June 1, 1879, to June 30, 1879.
Bailey, Harry L.	2d lt. 21st Inf.		Fort Townsend, Wash.	Mar. 31, 1879, to June 30, 1879.
Craigie, David J.	1st lt. 12th Inf.	Captain	Yuma Depot, Ariz. .	Nov. 6, 1878, to Jan. 6, 1879.
Campbell, William J. .	1st lt. 22d Inf.		Fort Brady, Mich. .	July 1, 1878, to June 3, 1879.
Clarke, Sidney E.	1st lt. & R. Q. M. 2d Inf.	Captain.	Fort Lapwai, Idaho. .	July 1, 1878, to June 30, 1879.
Chase, George N.	2d lt. 4th Inf.		Fort Fetterman, Wyo. .	Nov. 22, 1878, to June 30, 1879.
Cooke, Lorenzo W.	2d lt. 3d Inf.		Fort Missoula, Mont. .	July 1, 1878, to June 30, 1879.
Cavenaugh, Harry G. .	1st lt. 13th Inf.		Little Rock, Ark.	July 1, 1878, to May 1, 1879.
Craig, Louis A.	2d lt. 6th Cav.		Camp Huachuca, Ariz.	July 1, 1878, to Nov. 11, 1878.
Comba, Richard.	Capt. 17th Inf.	Major.	Camp Baker, Mont. .	Sept. 14, 1878, to Oct. 31, 1878.
Cory, William O.	1st lt. 15th Inf.		Fort Selden, N. Mex. .	July 1, 1878, to Oct. 13, 1878.
Custer, B. M.	1st lt. 24th Inf.		Fort Duncan, Tex. .	July 1, 1878, to June 30, 1879.
Cotton, Gilbert P.	1st lt. 1st Art.		Fort Trumbull, Conn. .	Do.
Carter, William H.	2d lt. 6th Cav.		Camp Lowell, Ariz. .	Sept. 1, 1878, to Apr. 1, 1879.
Do.	do.		Tucson, Ariz.	Nov. 7, 1878, to Apr. 1, 1879.
Clark, Dillard H.	1st lt. 15th Inf.		Fort Selden, N. Mex. .	Oct. 13, 1878, to Feb. 21, 1879.
Do.	do.		Fort Craig, N. Mex. .	Feb. 26, 1879, to June 15, 1879.
Conway, William	1st lt. 22d Inf.		Fort Gratiot, Mich. .	July 1, 1878, to Sept. 1, 1878.
Catley, Henry.	1st lt. 2d Inf.		In the field, Dept. of the Columbia.	July 13, 1878, to July 21, 1878.
Capron, Thaddeus H. .	1st lt. 9th Inf.		In the field, Dept. of the Platte.	July 1, 1878, to Oct. 12, 1878.
Do.	do.		Fort Hartauft, Nebr. .	Nov. 2, 1878, to June 30, 1879.
Clark, W. O.	2d lt. 6th Cav.		Fort Bowie, Ariz.	July 1, 1878, to June 30, 1879.

C.—List of officers on duty as acting assistant quartermasters, &c.—Continued.

Name.	Lineal rank and regiment.	Brevet rank.	Station.	Time during year on duty as A. A. Q. M.
Clifford, J. C.	Capt. ord		Saint Louis Arsenal, Mo.	July 1, 1878, to Nov. 1, 1878.
Cushing, Samuel T.	Capt. and C. S.		Baker City, Oreg.	July 7, 1878, to Aug. 15, 1878.
Crittenden, John J.	2d lt. 22d Inf.		Fort Gratiot, Mich.	Sept. 1, 1878, to June 30, 1879.
Chapin, E. S.	1st lt. 4th Art.		Fort Canby, Wash.	Sept. 21, 1878, to Feb. 1, 1879.
Cummings, J. F.	2d lt. 3d Cav.		In the field, Dept. of the Platte and Fort Robinson, Nebr.	Nov. 13, 1878, to June 18, 1879.
Curry, James	1st lt. 5th Art.		Key West Barracks, Fla.	Dec. 31, 1878, to June 30, 1879.
Cornish, George A.	1st lt. 15th Inf.		Fort Lewis, Colo.	Jan. 21, 1879, to June 30, 1879.
Conline, John	1st lt. 9th Cav.		Fort Selden, N. Mex.	Feb. 21, 1879, to June 6, 1879.
Do	do		Fort Craig, N. Mex.	June 15, 1879, to June 30, 1879.
Coale, John H.	1st lt. 2d Cav.		Fort Custer, Mont.	May 20, 1879, to June 30, 1879.
De Lany, Cyrus M.	1st lt. 15th Inf.		Fort Craig, N. Mex.	Jan. 1, 1879, to Feb. 26, 1879.
Duggan, Walter T.	1st lt. 10th Inf.		Fort McIntosh, Tex.	July 1, 1878, to Apr. 30, 1879.
Do	do		Fort Mackinac, Mich.	June 1, 1879, to June 30, 1879.
Drew, George A.	1stlt. and R. Q. M. 3d Cav.	Captain.	Fort Laramie, Wyo.	Dec. 31, 1878, to June 30, 1879.
Dinnick, E. D.	1st lt. 9th Cav.		Fort Union, N. Mex.	Dec. 20, 1878, to Dec. 31, 1878.
Dyer, A. B.	1st lt. 4th Art.		In the field, Department of the Columbia.	July 19, 1878, to July 25, 1878.
Dravo, Edward E.	2d lt. 6th Cav.		Fort McDowell, Ariz.	July 1, 1878, to Sept. 1, 1878.
Douglas, Samuel R.	2d lt. 7th Inf.		Fort Ellis, Mont.	July 1, 1878, to Dec. 31, 1878.
Davis, Edward	1st lt. 3d Art.		Fort Niagara, N. Y.	July 1, 1878, to June 30, 1879.
Duncan, Joseph W.	1st lt. 21st Inf.		In the field, Department of the Columbia.	July 1, 1878, to Sept. 21, 1878.
Do	do		Fort Klamath, Oreg.	Nov. 30, 1878, to June 30, 1879.
Dawson, Byron	1st lt. 9th Cav.		Saint Louis Barracks, Mo.	July 1, 1878, to Oct. 1, 1878.
Dodd, George A.	2d lt. 3d Cav.		Red Cloud Agency, Dak.	July 1, 1878, to Dec. 11, 1878.
Dodge, Frederick L.	1st lt. 23d Inf.		Fort Leavenworth, Kans.	May 31, 1879, to June 30, 1879.
Davis, Thomas F.	2d lt. 15th Inf.		Fort Garland, Colo.	Apr. 30, 1879, to June 30, 1879.
Davis, William, jr.	1st lt. and R. Q. M. 10th Cav.		Fort Concho, Tex.	May 25, 1879, to June 30, 1879.
Drum, John	1st lt. 10th Inf.		Fort Brady, Mich.	June 3, 1879, to June 30, 1879.
Elstein, F. H. E.	1st lt. and R. Q. M. 21st Inf.		In the field, Department of the Columbia.	July 1, 1878, to Sept. 8, 1878.
Do	do		Fort Vancouver, Wash.	Sept. 27, 1878, to July 30, 1879.
Everett, William	1st lt. 4th Art.		In the field, Department of the Columbia.	July 1, 1878, to June 2, 1878, and from Aug. 26, 1878, to Sept. 16, 1878.
Do	do		Fort Stevens, Oreg.	Sept. 21, 1878, to Mar. 31, 1879.
Earle, R. T.	2d lt. 2d Inf.		In the field, Department of the Columbia.	July 20, 1878, to Aug. 13, 1878, and from Oct. 18, 1878, to Oct. 31, 1878.
Eastman, James E.	1st lt. 2d Art.		Washington Arsenal, D. C.	Aug. 20, 1878, to Sept. 30, 1878.
Edmunds, Frank H.	2d lt. 1st Inf.		In the field, Department of Dakota.	July 1, 1878, to July 18, 1878.
Eaton, George O.	2d lt. 5th Cav.		Fort D. A. Russell, Wyo.	July 1, 1878, to June 30, 1879.
Ewing, E. S.	1st lt. 16th Inf.	Major	Fort Gibson, Ind. Ter.	July 1, 1878, to May 22, 1879.
Ennis, William	1st lt. 4th Art.	Captain.	Presidio, San Francisco, Cal.	July 1, 1878, to Oct. 1, 1878.
Fuger, Frederick	1st lt. and R. Q. M. 4th Art.	do	Angel Island, Cal.	July 1, 1878, to June 30, 1879.
Fowler, Joshua L.	1st lt. and R. Q. M. 2d Cav.		Fort Custer, Mont.	July 1, 1878, to May 20, 1879.
Farley, Joseph P.	Maj. ord		Kennebec Arsenal, Me.	July 1, 1878, to June 30, 1879.
Foote, George F.	1st lt. and R. Q. M. 8th Cav.	Captain.	Fort Ringgold, Tex.	July 1, 1878, to Apr. 1, 1879.
Flagler, D. W.	Maj. ord		Rock Island Arsenal, Ill.	July 30, 1878, to Nov. 1, 1878.
Farrow, Edward S.	2d lt. 21st Inf.		In the field, Department of the Columbia.	Sept. 19, 1878, to Nov. 30, 1878.
Do	do		Fort Townsend, Wash.	Dec. 7, 1878, to Mar. 30, 1879.
French, F. H.	2d lt. 3d Cav.		Camp Sheridan, Nebr.	Sept. 30, 1878, to June 30, 1879.
Fountain, Samuel W.	1st lt. 8th Cav.		Santa Maria, Tex.	June 1, 1879, to June 30, 1879.
Grealish, Michael J.	Capt. & O. S. K.		Augusta Arsenal, Ga.	July 1, 1878, to June 30, 1879.
Gerlach, William	2d lt. 3d Inf.		Fort Fred Steele, Wyo.	Oct. 16, 1878, to Apr. 1, 1879.
Gustin, Joseph H.	2d lt. 14th Inf.		Fort Hartsuff, Nebr.	July 1, 1878, to Nov. 2, 1878.
Gore, J. M.	2d lt. 22d Inf.		Fort Porter, N. Y.	July 1, 1878, to June 10, 1879.
Do	do		Buffalo, N. Y.	Aug. 29, 1878, to Oct. 23, 1878.
Goodwin, W. P.	2d lt. 14th Inf.		Camp Sheridan, Nebr.	July 1, 1878, to Sept. 30, 1878.
Glenn, E. F.	2d lt. 25th Inf.		Fort Stockton, Tex.	Oct. 8, 1878, to June 30, 1879.
Grujan, F. C.	1st lt. 2d Art.		Fort Whipple, Va.	July 1, 1878, to June 30, 1879.
Griffith, Emerson	1st lt. 13th Inf.		Mount Vernon Barracks, Ala.	July 1, 1878, to June 30, 1879.
Gibbon, D. J.	1st lt. 9th Cav.		Fort Bliss, Tex.	July 1, 1878, to Mar. 31, 1879.

C.—List of officers on duty as acting assistant quartermasters, &c.—Continued.

Name.	Lineal rank and regiment.	Brevet rank.	Station.	Time during year on duty as A. A. Q. M.
Gatewood, Charles B.	2d lt. 6th Cav		Camp Apache, Ariz	July 1, 1878, to July 31, 1878.
Gordon, Charles G	1st lt. 6th Cav		Camp Lowell, Ariz	July 1, 1878, to Aug. 31, 1878.
Do	do		Jefferson Barracks, Mo	Oct. 1, 1878, to Oct. 24, 1878.
Garlington, E. A.	1st lt. 7th Cav		Fort A. Lincoln, Dak.	Jan. 10, 1879, to Jan. 14, 1879.
Gray, Cyrus N	1st lt. 25th Inf		Fort Davis, Tex	Mar. 1, 1879, to June 30, 1879.
Garst, Charles E	2d lt. 15th Inf		Fort Stanton, N. Mex	Mar. 31, 1879, to June 30, 1879.
Gibson, F. M.	1st lt. 7th Cav		Jefferson Barracks, Mo	Do.
Geary, William L	2d lt. 12th Inf		Fort Grant, Ariz	Mar. 9, 1879, to June 30, 1879.
Getty, R. N	2d lt. 22d Inf		Fort Griffin, Tex	May 30, 1879, to June 30, 1879.
Hobbs, Charles W	1st lt. 3d Art		Plattsburg Barracks, N. Y.	July 1, 1878, to June 30, 1879.
Heath, Frank	1st lt. ordnance		Rock Island Arsenal, Ill.	Nov. 1, 1878, to June 30, 1879.
Hall, Charles B.	1st lt. 19th Inf		Fort Lyon, Colo	Oct. 1, 1878, to Feb. 9, 1879.
Do	do		Fort Leavenworth, Kans.	Feb. 19, 1879, to June 30, 1879.
Huggins, Eli L.	1st lt. 2d Art		Carlisle Barracks, Pa.	July 1, 1878, to Oct. 1, 1878.
Hubbard, Edward B.	do		Washington Arsenal, D. C.	Oct. 15, 1878, to June 30, 1879.
Hardin, Edward E	2d lt. 7th Inf		Fort Benton, Mont	July 1, 1878, to Sept. 15, 1878.
Hall, Joseph	2d lt. 14th Inf		Fort Hall, Idaho	Aug. 31, 1878, to Feb. 28, 1879.
Hall, William P	1st lt. & R. Q. M. 5th Cav		In the field, Department of the Platte.	July 1, 1878, to Dec. 1, 1878.
Hoyt, George S	1st lt. 18th Inf		Chattanooga, Tenn	July 1, 1878, to April 8, 1879.
Halloran, James	1st lt. 12th Inf		Camp Gaston, Cal	July 1, 1878, to Aug. 31, 1878.
Humphreys, Charles	1st lt. 3d Art		Fort Schuyler, N. Y.	Oct. 1, 1878, to June 30, 1879.
Hunt, Levi P	1st lt. 10th Cav		Fort Worth, Tex	Oct. 29, 1878, to June 17, 1879.
Harwood, Paul.	1st lt. 20th Inf		San Felipe, Tex	Jan. 4, 1879, to Mar. 1, 1879.
Do	do		Fort Clark, Tex	June 9, 1879, to June 30, 1879.
Henry, A. M.	2d lt. 3d Inf		Fort Benton, Mont	Sept. 15, 1878, to June 30, 1879.
Hathaway, F. H.	1st lt. & R. Q. M. 5th Inf	Captain.	Fort Keogh, Mont	Nov. 13, 1878, to June 30, 1879.
Hutton, James A	2d lt. 8th Inf		In the field, Department of the Columbia.	July 31, 1878, to Aug. 28, 1878.
Do	do		San Diego Barracks, Cal.	July 1, 1878, to Sept. 25, 1878.
Hardie, Francis H	2d lt. 3d Cav		Spotted Tail Agency, Dak.	July 1, 1878, to Aug. 26, 1878.
Do	do		In the field, Department of Dakota.	Aug. —, 1878, to Dec. 5, 1878.
Hoyt, Ralph W	2d lt. 11th Inf		Fort Bennett, Dak	Aug. 31, 1878, to June 30, 1879.
Hughes, M. B	1st lt. 9th Cav		In the field, Department of the Missouri.	July 1, 1878, to Sept. 1, 1879.
Hay, Charles	1st lt. 23d Inf		Fort Hays, Kans	Jan. 30, 1879, to June 30, 1879
Hewitt, C. C.	2d lt. 19th Inf		Fort Lyon, Colo	Feb. 9, 1879, to June 30, 1879.
Howard, Guy	2d 12th Inf		In the field, Department of Arizona.	Feb. 24, 1879, to June 30, 1879
Howe, Edgar W	2d lt. 17th Inf		Fort Sisseton, Dak	Apr. 30, 1879, to June 30, 1879
Holmes, Samuel N	2d lt. 13th Inf		Little Rock Barracks, Ark.	May 1, 1879, to June 30, 1879.
Haden, John J.	2d lt. 8th Inf		Fort Yuma, Cal.	Apr. 1, 1879, to June 30, 1879.
Ingersoll, Edward	Capt. & O. S. K		Springfield Armory, Mass.	July 1, 1878, to June 30, 1879.
Jones, Francis B.	1st lt. and R. Q. M. 3d Inf		In the field, Department of Dakota.	July 6, 1878, to Sept. 11, 1878.
Do	do		Fort Shaw, Mont	Nov. 1, 1878, to June 30, 1879.
Jacobs, Joshua W	1st lt. and R. Q. M. 7th Inf		do	July 1, 1878, to Sept. 15, 1878.
Do	do		Fort Snelling, Minn.	Oct. 21, 1878, to Dec. 8, 1878, and from March 6, 1879, to June 30, 1879.
Johnson, Henry	2d lt. 8th Inf		Fort Mohave, Ariz	May 19, 1879, to June 30, 1879.
Johnson, C. A.	1st lt. 14th Inf		Fort Robinson, Nebr.	July 1, 1878, to Dec. 31, 1878.
Jones, Samuel E.	1st lt. 4th Art		Fort Point, Cal	Sept. 16, 1878, to Oct. 6, 1878.
Kress, John A.	Capt. ord.	Major	Vancouver Arsenal, Wash.	July 1, 1878, to June 30, 1879.
Kingsbury, Geo. W.	1st lt. and R. Q. M. 12th Inf		Fort Whipple, Ariz	July 1, 1878, to June 30, 1879.
Kerr, John B.	1st lt. 6th Cav		Camp Lowell, Ariz	Aug. 31, 1878, to Sept. 1, 1878.
Kendall, H. M.	do		Fort McDowell, Ariz.	Sept. 1, 1878, to June 30, 1879.
Kendrick, F. M. H.	1st lt. 7th Inf		Fort Shaw, Mont	Sept. 15, 1878, to Nov. 1, 1878.
Kilpatrick, Andrew E	2d lt. 17th Inf		Fort Sisseton, Dak	Feb. 28, 1879, to Apr. 30, 1879.
Kimball, William A.	2d lt. 14th Inf		Fort Hall, Idaho	Feb. 28, 1879, to June 30, 1879
Kinzie, George H	1st lt. 15th Inf		Fort Bliss, Tex	Mar. 31, 1879, to June 30, 1879
Knower, E. C.	1st lt. 3d Art	Captain.	Madison Bar'cks, N. Y.	May 1, 1879, to June 30, 1879.
King, J. S.	1st lt. 12th Inf		Fort Verde, Ariz	June 21, 1879, to June 30, 1879
Love, George M.	1st lt. 16th Inf	Lt. col.	Fort Hays, Kans	July 1, 1878, to July 22, 1878.
Do	do		Fort Wallace, Kans.	Sept. 2, 1878, to June 5, 1879.
Leefe, John G	1st lt. 19th Inf		Fort Dodge, Kans	July 1, 1878, to June 30, 1879.
Lyon, Marcus W	1st lt. ord		Allegheny Arsenal, Pa	July 1, 1878, to June 30, 1879.

C.—List of officers on duty as acting assistant quartermasters, &c.—Continued.

Name.	Lineal rank and regiment.	Brevet rank.	Station.	Time during year on duty as A. A. Q. M.
Lewis, Granville	1st lt. 5th Inf.		Military prison, Fort Leavenworth, Kans.	July 1, 1878, to May 31, 1879.
Lawton, Henry W.	1st lt. & R. Q. M. 4th Cav.		Fort Clark, Tex.	Sept. 30, 1878, to Mar. 19, 1879, and from Apr. 19, 1879, to June 9, 1879.
Lafferty, John	Capt. 8th Cav.		Yerba Buena Island, Cal.	July 1, 1878, to Aug. 1, 1878.
Lovering, L. A.	2d lt. 4th Inf.		Fort Fetterman, Wyo.	July 1, 1878, to Nov. 30, 1878.
Lynch, Edward	2d lt. 8th Inf.		Fort Mojave, Ariz.	July 1, 1878, to May 19, 1879.
Ladley, Oscar D.	1st lt. 22d Inf.		Fort Mackinac, Mich.	Nov. 30, 1878, to June 1, 1879.
Loughborough, R. H.	2d lt. 25th Inf.		San Felipe, Tex.	Mar. 1, 1879, to June 30, 1879.
Luff, Edmund	1st lt. 8th Cav.		Fort Ringgold	Apr. 1, 1879, to June 30, 1879.
Morton, Alfred	1st lt. & R. Q. M. 9th Inf.		Fort Omaha, Nebr.	July 1, 1878, to June 30, 1879.
Miltimore, A. E.	1st lt. 1st Art.		Fort Preble, Me.	July 1, 1878, to June 28, 1879.
McGilvray, John	1st lt. 2d Art.		Fort McHenry, Md.	July 1, 1878, to June 30, 1879.
Miller, Crosby P.	1st lt. 4th Art.		West Point, N. Y.	July 1, 1878, to June 30, 1879.
McKeever, Samuel	1st lt. 2d Inf.		Camp Howard, Idaho	July 1, 1878, to June 30, 1879.
Mapn, William A.	2d lt. 17th Inf.		Fort Yates, Dak.	Oct. 12, 1878, to Apr. 2, 1879.
Murphy, John	1st lt. 14th Inf.		Fort Cameron, Utah	July 1, 1878, to June 30, 1879.
Miller, James	1st lt. 2d Inf.		Fort Colville, Wash.	July 1, 1878, to June 30, 1879.
Maurice, Thomas D.	1st lt. 2d Art.		Washington Arsenal, D. C.	July 1, 1878, to Aug. 20, 1878.
Do.	do.		Fort Foote, Md.	Aug. 21, 1878, to Dec. 1, 1878.
Do.	do.		Fort Ontario, N. Y.	Dec. 2, 1878, to June 30, 1879.
McGinness, John R.	Capt. ord.		Saint Louis Powder Depot, Mo.	Nov. 1, 1878, to June 30, 1879.
Miller, William H.	2d lt. 1st Cav.		In the field, Department of Columbia.	July 1, 1878, to Sept. 23, 1878.
Do.	do.		Fort Walla Walla, Wash.	Sept. 26, 1878, to June 30, 1879.
Mott, Wallace	2d lt. 8th Inf.		San Diego Barracks, Cal.	Sept. 25, 1878, to June 30, 1879.
Mount, John F.	1st lt. 3d Art.	Captain	Fort Ontario, N. Y.	July 1, 1878, to Oct. 20, 1878.
Markley, A. C.	1st lt. 24th Inf.		Columbus Barracks, Ohio.	Oct. 10, 1878, to June 30, 1879.
Metcalf, Henry	1st lt. ord.		Frankford Arsenal, Pa.	Aug. 31, 1878, to June 30, 1879.
Marye, William	Maj. ord.		Benicia Arsenal, Cal.	Aug. 1, 1878, to June 28, 1879.
Nichols, Frederick C.	1st lt. 1st Art.		Fort Independence, Mass.	Feb. 6, 1879, to April 12, 1879.
O'Connell, John J.	1st lt. 1st Inf.		Spotted Tail Agency, Dak.	Aug. 20, 1878, to Jan. 31, 1879.
Olmsted, Jerauld A.	1st lt. and R. Q. M. 13th Inf.		Jackson Barracks, La.	July 1, 1878, to June 30, 1879.
O'Brien, John J.	2d lt. 4th Inf.		Fort Fred. Steele, Wyo.	April 1, 1879, to June 30, 1879.
O'Connell, John	1st lt. 8th Inf.		Fort Yuma, Cal.	Oct. 4, 1878, to April 1, 1879.
Overton, Gilbert E.	1st lt. 6th Cav.		Camp Thomas, Ariz.	July 16, 1878, to April 2, 1879.
Otis, H. G.	2d lt. 4th Art.		Camp McDermitt, Nev.	July 27, 1878, to May 21, 1879.
Osley, R. H.	Capt. 1st Inf.		Red Cloud Agency, Dak.	Dec. 11, 1878, to May 21, 1879.
Ogle, Alexander	1st lt. 17th Inf.		Fort Yates, Dak.	April 2, 1879, to June 30, 1879.
Pollock, Robert	Capt. 21st Inf.		Fort Vancouver, Wash.	July 1, 1878, to Oct. 1, 1878.
Patten, F. J.	2d lt. 21st Inf.		Fort Boise, Idaho.	July 1, 1878, to Mar. 26, 1879.
Pitman, John.	1st lt. ord.		Watertown Arsenal, Mass.	July 1, 1878, to June 30, 1879.
Poland, M. L.	Capt. ord.		Benicia Arsenal, Cal.	July 1, 1878, to Aug. 20, 1878.
Pierce, Francis E.	1st lt. 1st Inf.		Fort Randall, Dak.	July 1, 1878, to June 30, 1879.
Patterson, Geo. T. T.	2d lt. 14th Inf.		Fort Douglas, Utah.	July 1, 1878, to June 30, 1879.
Patterson, Robert H.	1st lt. 1st Art.		Fort Independence, Mass.	July 1, 1878, to Feb. 6, 1879, and from April 10, 1879, to June 30, 1879.
Palmer, George H.	1st lt. 16th Inf.		Fort Wallace, Kans.	July 1, 1878, to Sept. 2, 1878.
Pague, Samuel S.	2d lt. 15th Inf.		Fort Stanton, N. Mex.	July 1, 1878, to Mar. 31, 1879.
Pratt, Sedgwick	1st lt. 3d Art.		Fort Hamilton, N. Y.	July 1, 1878, to June 30, 1879.
Pitcher, William L.	2d lt. 8th Inf.		Fort Halleck, Nev.	Sept. 5, 1878, to June 30, 1879.
Powell, James W.	1st lt. 8th Inf.		Fort Bidwell, Cal.	July 1, 1878, to June 30, 1879.
Pond, George E.	2d lt. 8th Cav.		San Diego, Tex.	July 1, 1878, to June 30, 1879.
Pierce, Jacob R.	1st lt. 24th Inf.		Fort McIntosh, Tex.	Apr. 30, 1879, to June 30, 1879.
Quinn, W. R.	1st lt. 4th Art.		Point San José, Cal.	July 1, 1878, to June 30, 1879.
Quinn, James B.	1st lt. Eng.		Willet's Point, N. Y.	July 1, 1878, to June 30, 1879.
Rice, William F.	1st lt. and R. Q. M. 23d Inf.		Fort Leavenworth, Kans.	July 1, 1878, to Feb. 19, 1879.
Do.	do.		Fort Supply, Ind. T.	Mar. 20, 1879, to June 30, 1879.
Reilly, Henry J.	1st lt. 5th Art.		Fort Barrancas, Fla.	July 1, 1878, to June 30, 1879.
Ritzius, Henry P.	1st lt. 25th Inf.		Fort Davis, Tex.	July 1, 1878, to Mar. 1, 1879.
Robinson, Wm. W.	1st lt. 7th Cav.		Fort Totten, Dak.	July 1, 1878, to June 30, 1879.
Ruhlen, George	1st lt. 17th Inf.		Fort Meade, Dak.	Aug. 16, 1878, to June 30, 1879.
Robinson, Frederick	1st lt. 5th Art.		Savannah, Ga.	July 1, 1878, to June 30, 1879.
Roach, George H.	1st lt. 17th Inf.		Fort Pembina, Dak.	July 1, 1878, to May 31, 1879.
Reade, Harry	1st lt. 25th Inf.		Fort Stockton, Tex.	July 1, 1878, to Oct. 8, 1878.

C.—List of officers on duty as acting assistant quartermasters, &c.—Continued.

Name.	Lineal rank and regiment.	Brevet rank.	Station.	Time during year on duty as A. A. Q. M.
Richmond, E. T. C.	1st lt. 2d Art.		Fort Foote, Md.	July 1, 1878, to Aug. 21, 1878.
Do.	do		Washington Arsenal, D. C.	Sept. 30, 1878, to Oct. 15, 1878.
Do.	do		Carlisle Barracks, Pa.	Jan. 2, 1879, to Apr. 1, 1879, and from May 31, 1879, to June 30, 1879.
Reynolds, Bainbridge	2d lt. 3d Cav.		Fort Laramie, Wyo.	July 1, 1878, to Dec. 31, 1878.
Randolph, B. H.	2d lt. 3d Art.		Geographical surveys west of the 100th meridian.	July 1, 1878, to June 30, 1879.
Russell, E. K.	1st lt. 1st Art.		Fort Warren, Mass.	Oct. 4, 1878, to June 30, 1879.
Rockwell, C. H.	1st lt. 5th Cav.		Jefferson Barracks, Mo.	Oct. 24, 1878, to Mar. 31, 1879.
Rucker, L. H.	1st lt. and R. Q. M. 9th Cav.		Santa Fé, N. Mex.	Oct. 31, 1878, to Dec. 6, 1878.
Scantling, John C.	1st lt. 2d Art.		Carlisle Barracks, Pa.	Oct. 1, 1878, to Jan. 2, 1879.
Stone, E. W.	1st lt. 21st Inf.	Lt. col.	Fort Townsend, Wash.	Sept. 16, 1878, to Dec. 7, 1878.
Do.	do	do	Fort Canby, Wash.	Feb. 1, 1879, to June 30, 1879.
Shelby, Isaac O.	2d lt. 16th Inf.		Fort Wallace, Kans.	June 5, 1879, to June 30, 1879.
Sarson, Horace B.	1st lt. 2d Inf.		Fort Stevens, Oreg.	July 1, 1878, to Sept. 21, 1878.
Do.	do		Fort Canby, Wash.	July 1, 1878, to Sept. 21, 1878.
Do.	do		Fort Harney, Oreg.	Oct. 19, 1878, to June 30, 1879.
Shaw, Richard G.	1st lt. 1st Art.	Captain.	Fort Warren, Mass.	July 1, 1878, to Oct. 1, 1878.
Stanton, William	1st lt. 6th Cav.		Fort Apache, Ariz.	July 31, 1878, to June 30, 1879.
Scott, John	1st lt. and R. Q. M. 4th Inf.		Fort Sanders, Wyo.	July 1, 1878, to Apr. 1, 1879, and from June 1, 1879, to June 30, 1879.
Stafford, Stephen R.	1st lt. and R. Q. M. 15th Inf.		Fort Wingate, N. Mex.	July 1, 1878, to June 30, 1879.
Smith, Theodore	1st lt. 15th Inf.		Fort Craig, N. Mex.	July 1, 1878, to Jan. 1, 1879.
Smith, George R.	2d lt. 12th Inf.		Camp John A. Rucker, Ariz.	Oct. 19, 1878, to June 30, 1879.
Smith, Frederick A.	1st lt. 12th Inf.		Camp Bidwell, Cal.	July 1, 1878, to Sept. 4, 1878.
Do.	do		Military surveys in the Dept. of Arizona.	Jan. 31, 1879, to June 30, 1879.
Smith, Lewis	1st lt. 9d Art.		Fort Schuyler, N. Y.	July 1 1878, to Oct. 1.
Spencer, James H.	1t lt. 4th Inf.		Camp Stambaugh, Wyo.	July 1, 1878, to Aug. 20.
Shofner, James C.	2d lt. 21st Inf.		Camp Harney, Oreg.	Aug. 26 to Oct. 19, 1878.
Schenck, A. D.	1st lt. 2d Art.		Fort Johnston, N. C.	July 1, 1878, to June 30, 1879.
Shelton, Edwin H.	1st lt. 1st Cav.		Fort Walla Walla, Wash.	Aug. 5 to Sept. 30, 1878.
Summerhayes, J. W.	1st lt. 8th Inf.	Captain.	In the field, Dept. of Arizona.	July 9 to July 19, 1878.
Do.	do	do	Fort McDermit, Nev.	Sept. 24, 1878, to June 30, 1879.
Scott, George L.	2d lt. 6th Cav.		Camp Verde, Ariz.	July 31 to Oct. 1, 1878.
Sladen, Joseph A.	1st lt. 14th Inf.		Vancouver, Wash.	Sept. 16, 1878, to Mar. 31, 1879.
Stiles, Daniel F.	1st lt. 10th Inf.	Captain.	Fort Clark, Tex.	July 1, 1878, to Sept. 30, 1878, and from Mar. 14, 1879, to Apr. 19, 1879.
Do.	do		Fort Porter, N. Y.	June 10, 1879 to June 30, 1879.
Sanborn, W. I.	1st lt. 25th Inf.		San Felipe, Tex.	July 1, 1878, to Jan. 4, 1879.
Smith, O. M.	1st lt. 22d Inf.		Fort Wayne, Mich.	July 26, 1878, to Aug. 4, 1878, and from Mar. 20, 1879, to May 27, 1879.
Sparrow, Solomon E.	2d lt. 21st Inf.		In the field, Department of the Columbia.	Jan. 25, 1879, to Apr. 14, 1879.
Stembel, J. McB.	2d lt. 9th Inf.		Fort Sidney, Nebr.	Mar. 15, 1879, to June 30, 1879.
Shoemaker, Frank L.	1st lt. 4th Cav.		Fort Sill, Ind. T.	Apr. 30, 1879, to June 30, 1879.
Thorne, Platte M.	1st lt. and R. Q. M. 22d Inf.		Fort Wayne, Mich.	July 1, 1878, to Mar. 20, 1879.
Do.	do		Fort McKavett, Tex.	May 7, 1879, to June 30, 1879.
Tassin, A. G.	1st lt. 12th Inf.		In the field, Department of the Columbia.	Aug. 28, 1878, to Sept. 19, 1878.
Do.	do		In the field, Department of Arizona.	Jan. 9, 1879, to Feb. 24, 1879.
Thorp, Frank	1st lt. and R. Q. M. 5th Art.		Charleston, S. C.	Oct. 25, 1878, to Dec. 18, 1878.
Toucy, Timothy A.	2d lt. 6th Cav.		Military surveys in the Department of Arizona	Aug. 12, 1878, to Jan. 31, 1879.
Taylor, Daniel M.	1st lt. Ord. Dept.		Rock Island, Ill.	July 1, 1878, to July 30, 1878.
Troxel, Thomas G.	1st lt. and R. Q. M. 17th Inf.		Standing Rock, Dak.	July 1, 1878, to Oct. 12, 1878 ¹
Thies, Frederick	2d lt. 3d Inf.		In the field, Department of Dakota.	Sept. 11, 1878, to Oct. 31, 1878.
Trout, John F.	1st lt. 23d Inf.		Fort Hays, Kans.	July 22, 1878, to Jan. 30, 1879.
Do.	do		Cantonment on North Fork of Canadian River, Ind. T.	Feb. 19, 1879, to June 30, 1879.

C.—List of officers on duty as acting assistant quartermasters, &c.—Continued.

Name.	Lineal rank and regiment.	Brevet rank.	Station.	Time during year on duty as A. A. Q. M.
Tolman, T. M.....	Capt. 1st Inf.		Fort Sully, Dak.....	July 1, 1878, to Dec. 31, 1878.
Turner, G. L.....	2d lt. 18th Inf.		Newport Barracks, Ky	July 1, 1878, to Mar. 31, 1879.
Taylor, Sidney W.....	1st lt. 4th Art.		Alcatraz Island, Cal...	July 22, 1878, to June 30, 1879.
Tutherly, H. E.....	2d lt. 1st Cav.		In the field, Department of the Columbia.	April 14, 1879, to May 15, 1879.
Upham, Frank K.....	1st lt. 1st Cav.		Fort Walla Walla, Wash.	July 1, 1878, to Aug. 15, 1878.
Ulio, James.....	1st lt. 2d Inf.		Camp Cœur d'Alene, Idaho.	July 1, 1878, to Dec. 31, 1878.
Varnum, Charles A.....	1st lt. and R. Q. M. 7th Cav.		Camp J. G. Sturges, Dak.	July 18, 1878, to Nov. 21, 1878.
Do.....	do		Fort A. Lincoln, Dak..	Dec. 10, 1878, to Jan. 10, 1879, and from March 1, 1879, to June 15, 1879.
Von Schrader, Fred'k	2d lt. 12th Inf.		Camp McDermit, Nev.	July 1, 1878, to July 27, 1878.
Do.....	do		In the field, Department of Arizona.	Feb. 25, 1879, to June 30, 1879.
Valois, Gustavus.....	1st lt. 9th Cav.		In the field, Department of Missouri.	July 1, 1878, to Nov. 28, 1878.
Do.....	do		Fort Lewis, Colo.....	Nov. 30, 1878, to Jan. 21, 1879.
Whistler, G. N.....	1st lt. 5th Art.		Key West, Fla.....	July 1, 1878, to Dec. 31, 1878.
Ward, Frederick K.....	1st lt. 1st Cav.		Fort Boise, Idaho.....	Mar. 26, 1879, to June 30, 1879.
Wilson, George S.....	1st lt. 12th Inf.		Exploring expedition in the Department of California.	July 1, 1878, to Oct. 31, 1878.
Ward, Henry C.....	1st lt. and R. Q. M. 16th Inf.	Captain.	Fort Riley, Kans.....	July 1, 1878, to June 30, 1879.
Wotherspoon, W. W.....	2d lt. 12th Inf.		Benicia Barracks, Cal.	July 1, 1878, to July 18, 1878.
Do.....	do		Fort Verde, Ariz.....	Oct. 1, 1878, to June 21, 1879.
West, Frank.....	1st lt. 6th Cav.		In the field, Department of Arizona.	Dec. 2, 1878, to Feb. 25, 1879.
Whitney, F. A.....	1st lt. 8th Inf.		Benicia Barracks, Cal.	July 18, 1878, to Sept. 22, 1878.
Whyte, Frederick.....	Capt. O. S. K.....		Washington Arsenal, D. C.	July 1, 1878, to June 30, 1878.
Wittich, Willis.....	2d lt. 21st Inf.		Fort Klamath, Oreg..	July 1, 1878, to Nov. 30, 1878.
Woodbury, Thomas C.....	2d lt. 16th Inf.		Fort Reno, Ind. T....	July 1, 1878, to June 30, 1879.
Wenle, Thomas M.....	1st lt. 19th Inf.		Fort Elliott, Tex.....	July 1, 1878, to June 30, 1879.
Wheeler, H. W.....	2d lt. 5th Cav.		Fort McPherson, Nebr	July 1, 1878, to Nov. 30, 1878.
Wetherill, A. M.....	2d lt. 6th Inf.		Fort Stevenson, Dak.	July 1, 1878, to June 30, 1879.
Wilhelm, Louis.....	2d lt. 1st Inf.		Lower Brule, Dak.....	July 1, 1878, to Sept. 30, 1878.
Williams, W. M.....	1st lt. 19th Inf.		Fort Lyon, Colo.....	July 1, 1878, to Oct. 1, 1878.
Wilson, Richard H.....	2d lt. 8th Inf.		Fort Gaston, Cal.....	Aug. 31, 1878, to June 30, 1879.
Winchester, H. F.....	1st lt. 6th Cav.		Camp Supply, Ariz....	July 1, 1878, to Oct. 19, 1878.
White, John C.....	1st lt. 1st Art.		Fort Wood, N. Y.....	July 12, 1878, to June 30, 1879.
Woodward, Charles G.....	2d lt. 3d Art.		Fort Ontario, N. Y....	Oct. 20, 1878, to Dec. 2, 1878.
Wilson, James L.....	2d lt. 4th Art.		Fort Point, Cal.....	Oct. 6, 1878, to June 30, 1879.
Weston, John F.....	Capt. c'm. sub.		Helena, Mont.....	Nov. 9, 1878, to June 30, 1879.
Whitney, John.....	1st lt. 11th Inf.		Fort Sully, Dak.....	Jan. 1, 1879, to June 30, 1879.
Woodruff, C. A.....	Capt. 2d Art.....		Carlisle Barracks, Pa.	April 1, 1879, to May 31, 1879.
Williams, Charles W.....	2d lt. 18th Inf.		Atlanta, Ga.....	April 18, 1879, to June 30, 1879.
Wheeler, William B.....	2d lt. 18th Inf.		Coal Banks, Dak.....	May 7, 1879, to June 30, 1879.
Walker, H. P.....	1st lt. 17th Inf.		Fort Pembina, Dak....	May 31, 1879, to June 30, 1879.
Wagner, A. L.....	2d lt. 6th Inf.		Fort A. Lincoln, Dak.	June 15, 1879, to June 30, 1879.
Young, D. J.....	Capt. & O. S. K.....		Watervliet Arsenal, N. Y.	July 1, 1878, to June 30, 1879.
Young, Geo. S.....	2d lt. 7th Inf.		Camp Baker, Mont....	July 1, 1878, to Sept. 15, 1878.

3.—Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general.

WAR DEPARTMENT, QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 5, 1879.

GENERAL: I have the honor to submit the following report of the work of the accounts branch of this office for the last fiscal year:

	Appropriations.									Total.
	1871 and prior years.	1871-'72.	1872-'73.	1873-'74.	1874-'75.	1875-'76.	1876-'77.	1877-'78.	1878-'79.	
On July 1, 1878, the balances of appropriations of the Quartermaster's Department in the Treasury undrawn were, by report of last year.	\$165,534 69	\$746 90	\$3,589 24	\$51,880 72	\$3,087 58	\$45,871 78	\$812,883 23	\$445,501 78	.....	\$1,529,035 92
Appropriation for the fiscal year (act of Congress approved June 18, 1878).....	.....	.....	.....	.....	.....	.....	.....	.....	\$10,964,000 00	10,964,000 00
Appropriation for the fiscal year (act of Congress approved June 20, 1878).....	.....	.....	.....	.....	.....	.....	.....	.....	104,969 00	104,969 00
Appropriation for deficiencies (act of Congress approved June 20, 1878).....	9,617 71	147,46	407 47	.....	.....	.....	.....	.....	.....	10,172 64
Appropriations for the fiscal year (act of Congress approved March 3, 1879).....	.....	.....	.....	.....	.....	.....	3,078 07	3,102 05	.....	8,571 79
Appropriation for fiscal year (act of Congress approved February 3, 1879).....	.....	.....	.....	.....	.....	.....	.....	.....	192,027 49	192,027 49
Amount placed to credit of appropriations during the year by deposit of funds for redistribution and from amounts received from sales to officers, &c., of public property.....	9,353 45	.....	130 99	212 00	1,338 65	1,509 56	21,538 91	429,274 18	238,069 68	701,427 42
Total	184,505 85	894 36	4,127 70	52,092 72	4,426 23	47,381 34	837,500 21	877,878 01	11,501,457 84	13,510,264 26
Remitted to disbursing officers during the year.	.....	.....	.....	99 51	.....	.....	.....	269,457 48	10,944,605 52	11,214,162 51
Requisitions on settlements made at the Treasury on claims and accounts.....	174,215 65	674 90	3,686 74	51,920 19	3,019 07	.....	403,026 66	170,959 22	51,465 27	858,967 70
Amount of war transfer warrant No. 292 (act of Congress approved March 3, 1875).....	7,178 28	10 88	.....	.....	.....	.....	.....	.....	.....	7,189 16
Amount drawn by the Commissary-General of Subsistence.....	.....	.....	.....	.....	.....	.....	.....	.....	12,135 50	12,135 50
Amount carried to surplus fund (act of Congress approved June 20, 1874).....	1,911 92	208 58	440 96	73 02	1,407 16	2,354 59	191,712 03	.....	.....	198,108 26
Total	183,305 85	894 36	4,127 70	52,092 72	4,426 23	2,354 59	594,738 69	440,416 70	11,008,206 29	12,290,563 13
Balance in Treasury July 1, 1879.....	1,200 00	.....	.....	.....	.....	45,026 75	245,004 79	435,218 04	493,251 55	1,219,701 13

The balances of appropriations undrawn by the Quartermaster's Department July 1, 1879, were as follows:

Appropriations.	1871 and prior years.	1871-'72.	1872-'73.	1873-'74.	1874-'75.	1875-'76.	1876-'77.	1877-'78.	1878-'79.	Total.
Regular supplies	\$864 40							\$259,259 89	\$58,836 22	\$318,960 51
Incidental expenses								142 37	142 37	142 37
Horses for cavalry and artillery								23,989 97	2,872 50	26,862 47
Barracks and quarters								5,102 47	7 50	5,109 97
Transportation of the Army and its supplies	335 60							20,122 21	90,996 09	111,453 90
Clothing and equipage						\$26 75	\$245,004 79	122,091 18	127,676 67	494,799 39
National cemeteries								43 10	11,401 73	11,444 83
Pay of superintendents of national cemeteries								3,464 69	2,630 68	6,095 37
Construction and repair of hospitals								1,002 16	3 86	1,006 02
Purchase of site for Fort Brown, Tex						25,000 00				25,000 00
Purchase of site for Fort Duncan, Tex						10,000 00				10,000 00
Purchase of site for Ringgold Barracks, Tex						10,000 00				10,000 00
Headstones for graves in private cemeteries									182,027 49	182,027 49
Military prison, Fort Leavenworth, Kans									11,898 81	11,898 81
Removing remains of officers to national cemeteries									4,900 00	4,900 00
Total	1,200 00					45,026 75	245,004 79	435,218 04	493,251 55	1,219,701 13

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, showing also the amounts expended, amounts carried to surplus fund, &c.

1871-72.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.
Appropriations for fiscal year, act approved March 3, 1871	\$4,000,000 00	\$900,000 00	\$450,000 00	\$1,000,000 00	\$4,000,000 00
Appropriations for deficiencies, act approved May 18, 1872	3,000,000 00	325,000 00		625,000 00	
Appropriation for fiscal year, act approved May 18, 1872					
Appropriations for deficiencies, act approved March 3, 1873	310,000 00	200,000 00			600,000 00
Reappropriated, act approved March 3, 1875	835 17	3,882 20		948 88	48,708 02
Appropriation for deficiencies, act approved May 1, 1876		97 60		4,573 12	2,652 97
Amount restored to appropriations from surplus funds, being under contract, liable to disbursement	1,842 83				
Appropriation for deficiencies, act approved March 3, 1877	126 40		173 00		
Appropriation for deficiencies, act approved June 14, 1878					
Reappropriated, act approved June 14, 1878	366 10			268 80	
Total appropriations for the fiscal year to June 30, 1879	4,613,170 50	1,428,979 80	450,173 00	1,630,790 80	4,651,360 99
Amount expended*	4,520,538 37	1,305,141 51	421,915 69	1,544,433 82	4,041,678 75
Amount carried to surplus fund June 30, 1875, act approved July 12, 1870			27,983 31	82,576 25	
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874	90,690 74	122,884 06	120 00	62 25	564,786 45
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874	239 70	40 71		31 01	68 81
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874	1,692 69	16 20	118 00		218 79
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874	9 00	896 32		3,567 47	44,608 19
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874			36 00	120 00	
Total amount carried to surplus fund*	92,632 13	123,837 29	28,257 31	86,356 98	609,682 24
Amount drawn from appropriations by war warrants, transfer account, act approved March 3, 1875*		1 00			
Aggregated	4,613,170 50	1,428,979 80	450,173 00	1,630,790 80	4,651,360 99

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued.

1871-72.

Appropriations, &c.	Clothing and equipage.	National cemeteries.	Purchase of stores.	Transportation of insane volunteers.	Total.
Appropriations for fiscal year, act approved March 3, 1871	\$500,000 00	\$200,000 00	\$5,000 00	.....	\$11,055,000 00
Appropriations for deficiencies, act approved May 18, 1872	150,000 00	50,000 00	.....	.....	1,450,000 00
Appropriation for fiscal year, act approved May 18, 1872 .....	.....	.....	.....	\$1,000 00	1,000 00
Appropriations for deficiencies, act approved March 3, 1873 .....	.....	.....	.....	.....	1,110,000 00
Reappropriated, act approved March 3, 1875	1,000 00	.....	.....	.....	55,374 27
Appropriation for deficiencies, act approved May 1, 1876 .....	.....	.....	.....	.....	7,323 69
Amount restored to appropriations from surplus funds, being under contract, liable to disbursement .....	.....	.....	.....	.....	1,842 83
Appropriation for deficiencies, act approved March 3, 1877 .....	.....	.....	.....	.....	299 40
Appropriation for deficiencies, act approved June 14, 1878 .....	.....	76 00	.....	.....	76 00
Reappropriated, act approved June 14, 1878 .....	.....	.....	.....	.....	634 90
Total appropriations for the fiscal year to June 30, 1879	651,000 00	250,076 00	5,000 00	1,000 00	13,681,551 09
Amount expended*	632,486 36	250,040 00	4,882 48	1,000 00	12,722,116 98
Amount carried to surplus fund June 30, 1875, act approved July 12, 1870	8,537 10	.....	117 52	.....	119,214 18
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874	1,365 81	.....	.....	.....	779,909 31
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874	2,496 36	.....	.....	.....	2,876 59
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874	910 87	.....	.....	.....	2,956 55
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874	8 14	.....	.....	.....	49,089 12
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874	10 58	36 00	.....	.....	208 58
Total amount carried to surplus fund*	13,334 86	36 00	117 52	.....	954,254 33
Amount drawn from appropriations by war warrants, transfer account, act approved March 3, 1875*	5,178 78	.....	.....	.....	5,179 78
*Aggregated	651,000 00	250,076 00	5,000 00	1,000 00	13,681,551 09

QUARTERMASTER-GENERAL.

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued

1872-'73.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.	Clothing and equipage.	National cemeteries.
Appropriations for fiscal year, act approved June 6, 1872.....	\$4,000,000 00	\$1,200,000 00	\$300,000 00	\$1,250,000 00	\$4,000,000 00	\$770,000 00	\$450,000 00
Appropriation for fiscal year, act approved February 19, 1873.....							
Appropriations for fiscal year, act approved March 3, 1873.....							
Appropriations for deficiencies, act approved March 3, 1873.....	590,000 00	100,000 00		250,000 00	500,000 00	130,000 00	
Appropriations for fiscal year, act approved June 22, 1874.....	100,000 00	200,000 00		90,000 00	175,000 00		
Appropriations for fiscal year, act approved March 3, 1877.....				208 80	61,493 04		
Reappropriated, act approved June 14, 1878.....	682 59	2,385 51		1,742 00	281 32	239 82	
Reappropriated for deficiencies, act approved June 28, 1878.....					407 47		
Total appropriations for fiscal year to June 30, 1879.....	4,690,682 59	1,502,385 51	300,000 00	1,591,950 80	4,737,181 83	900,239 82	450,000 00
Amount expended*.....	4,611,265 42	1,488,121 94	244,891 15	1,549,349 83	4,668,253 13	885,402 70	299,436 23
Amount carried to surplus fund June 30, 1875, act approved June 20, 1874..	78,402 52	13,958 47	54,983 30	42,563 15	61,493 04	1,395 04	978 27
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874..	314 00	231 72		35 42	281 32	728 65	537 02
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874..	1 00			1 20	47 01	126 60	
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874..	3 64			1 20	407 47	28 65	
Total amount carried to surplus fund*.....	78,721 16	14,190 19	54,983 30	42,600 97	62,228 84	14,835 68	1,515 29
Transferred to appropriations for year 1875-'76, act approved March 3, 1875							149,048 48
Drawn by other bureaus of War Department.....							
Amounts drawn from appropriations by war warrants, transfer account, act approved March 3, 1875.....	696 01	73 38	125 55		6,699 86	1 44	
	*696 01	73 38	125 55		6,699 86	1 44	149,048 48
Aggregated*.....	4,690,682 59	1,502,385 51	300,000 00	1,591,950 80	4,737,181 83	900,239 82	450,000 00

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued

1872-'73.

Appropriations, &c.	Purchase of stores.	Hospitals.	Expenses of sales.	Military reservation at Camp Mohave.	Monument at Salisbury, N. C.	Total.
Appropriations for fiscal year, act approved June 6, 1872	\$10,000 00	\$100,000 00	\$10,000 00			\$12,090,000 00
Appropriation for fiscal year, act approved February 19, 1873				\$14,219 00		14,219 00
Appropriation for fiscal year, act approved March 3, 1873					\$10,000 00	10,000 00
Appropriations for deficiencies, act approved March 3, 1873						1,570,000 00
Appropriations for fiscal year, act approved June 22, 1874						565,000 00
Appropriations for fiscal year, act approved March 3, 1877						61,701 84
Reappropriated, act approved June 14, 1878						5,331 24
Appropriated for deficiencies, act approved June 28, 1878						407 47
Total appropriations for the fiscal year to June 30, 1879	10,000 00	100,000 00	10,000 00	14,219 00	10,000 00	14,316,659 55
Amount expended*	9,857 18	68,598 53	1,819 93	14,219 00	10,000 00	13,851,215 04
Amount carried to surplus fund June 30, 1875, act approved June 20, 1874	142 82	31,401 47	6,465 10			40,382 70
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874						252,666 15
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874						13,419 20
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874						175 81
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874						440 96
Total amount carried to surplus fund*	142 82	31,401 47	6,465 10			307,084 82
Transferred to appropriations for year 1875-'76, act approved March 3, 1875						149,048 48
Drawn by other bureaus of War Department			1,714 97			1,714 97
Amounts drawn from appropriations by war warrants, transfer accounts, act approved March 3, 1875						7,596 24
Aggregated*	10,000 00	100,000 00	10,000 00	14,219 00	10,000 00	14,316,659 55

QUARTERMASTER-GENERAL.

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued.

1873-'74.

Appropriations, &c.	Regular sup- plies.	Incidental ex- penses.	Horses.	Barracks and quarters.	Army trans- portation.	Clothing and equipment.
Appropriations for the fiscal year, act approved March 3, 1873.....	\$4,500,000 00	\$1,300,000 00	\$350,000 00	\$1,700,000 00	\$4,500,000 00	\$1,523,508 81
Appropriations for the fiscal year, act approved March 3, 1873.....						200,000 00
Appropriation for deficiencies, act approved March 3, 1875.....		20,000 00				
Appropriations for deficiencies, act approved March 3, 1877.....	372 15	3,432 95		318 83	54,602 94	
Amount restored from surplus fund, being under contract liable to disburse- ment.....	2,778 55					
Do.....						
Appropriation for deficiencies, act approved June 14, 1878.....		7,996 76				
Reappropriated, act approved June 14, 1878.....	504 95	477 49		30 00	42,860 17	11 35
Total appropriations for the fiscal year to June 30, 1879.....	4,503,655 65	1,331,907 20	350,000 00	1,700,348 83	4,597,463 11	1,723,520 16
Amount expended*.....	4,314,656 15	1,331,329 91	304,784 89	1,678,353 85	3,915,240 25	1,699,173 50
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874....	188,983 27		45,215 11	21,990 48	681,369 87	18,478 35
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874....	11 68	477 49		50	228 29	1,015 81
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874....	2 79	69 80			622 13	4 41
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874....	1 76	30 00		4 00	2 57	34 69
Total amount carried to surplus fund*.....	188,999 50	577 29	45,215 11	21,994 98	682,222 86	19,533 26
Amount drawn from appropriations by war-warrant, transfer account, act approved March 3, 1878*.....						4,813 40
Aggregated*.....	4,503,655 65	1,331,907 20	350,000 00	1,700,348 83	4,597,463 11	1,723,520 16

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued

1873-'74—Continued.

Appropriations, &c.	National ceme- teries.	Hospitals.	Headstones.	Military tele- graph, Cali- fornia and Arizona.	Depqt build- ing, San An- tonio, Tex.	Total.
Appropriations for the fiscal year, act approved March 3, 1873.....	\$275,000 00	\$100,000 00	\$1,000,000 00			\$15,248,508 81
Appropriations for the fiscal year, act approved March 3, 1873.....				\$50,311 80	\$100,000 00	350,311 80
Appropriation for deficiencies, act approved March 3, 1875.....						20,000 00
Appropriations for deficiencies, act approved March 3, 1877.....						58,726 87
Amount restored from surplus fund, being under contract liable to disburse- ment.....			323,000 00			325,778 55
Do.....			19,000 00			19,000 00
Appropriation for deficiencies, act approved June 14, 1878.....						7,996 76
Reappropriated, act approved June 14, 1878.....						43,883 96
Total appropriations for the fiscal year to June 30, 1879.....	275,000 00	100,000 00	1,342,000 00	50,311 80	100,000 00	16,074,206 75
Amount expended *.....	274,958 17	86,494 42	807,873 00	45,452 87	100,000 00	14,558,317 01
Amount carried to surplus fund June 30, 1876, act approved June 20, 1874....	41 83	13,505 58	534,087 83	4,858 93		1,508,531 25
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874....						1,733 77
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874....			39 17			738 30
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874....						73 02
Total amount carried to surplus fund*.....	41 83	13,505 58	534,127 00	4,858 93		1,511,076 34
Amount drawn from appropriations by war-warrant, transfer account, act approved March 3, 1878*.....						4,813 40
Aggregated*.....	275,000 00	100,000 00	1,342,000 00	50,311 80	100,000 00	16,074,206 75

QUARTERMASTER-GENERAL.

1874-'75.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.	Clothing and equipage.
Appropriations for fiscal year, act approved June 16, 1874	\$4,250,000 00	\$1,250,000 00	\$300,000 00	\$1,400,000 00	\$4,000,000 00	\$1,480,000 00
Appropriations for fiscal year, act approved June 23, 1874						
Appropriation for deficiencies, act approved May 1, 1876				7,783 35		
Appropriation for deficiencies, act approved June 14, 1878						
Reappropriated, act approved June 14, 1878	247 89	2,691 75				
Total appropriations for fiscal year to June 30, 1879	4,250,247 89	1,202,691 75	300,000 00	1,407,783 35	4,000,000 00	1,480,000 00
Amount expended *	4,026,076 95	1,091,051 03	266,175 05	1,399,381 10	3,998,290 39	1,423,632 31
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874	223,916 30	111,149 25	33,675 19			54,658 68
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874	133 14	485 55		8,402 25	952 41	839 23
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874	121 50	5 92	149 76		757 20	253 23
Total amount carried to surplus fund *	224,170 94	111,640 72	33,824 95	8,402 25	1,709 61	55,751 14
Amount drawn from appropriations by war-warrants, transfer account, act approved March 3, 1878 *						616 55
Aggregated *	4,250,247 89	1,202,691 75	300,000 00	1,407,783 35	4,000,000 00	1,480,000 00

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued.

1874-'75—Continued.

Appropriations, &c.	National cemeteries.	Hospitals.	Post on Loupe River.	Winter quarters for troop at Red Cloud Agency.	Platte River bridge.	Military prison, Fort Leavenworth.	Total.
Appropriations for fiscal year, act approved June 16, 1874.....	\$150,000 00	\$100,000 00	\$50,000 00				\$12,930,000 00
Appropriations for fiscal year, act approved June 23, 1874.....				\$30,000 00	\$15,000 00	\$25,000 00	70,000 00
Appropriation for deficiencies, act approved May 1, 1876.....							7,783 35
Appropriation for deficiencies, act approved June 14, 1878.....	18 00						18 00
Reappropriated, act approved June 14, 1878.....							2,939 64
Total appropriations for fiscal year to June 30, 1879.....	150,018 00	100,000 00	50,000 00	30,000 00	15,000 00	25,000 00	13,010,740 99
Amount expended*.....	150,018 00	95,844 15	49,996 00	30,000 00	15,000 00	24,927 94	12,570,392 92
Amount carried to surplus fund June 30, 1877, act approved June 20, 1874.....		4,155 85	4 00			72 06	427,631 33
Amount carried to surplus fund June 30, 1878, act approved June 20, 1874.....							10,812 58
Amount carried to surplus fund June 30, 1879, act approved June 20, 1874.....							1,287 61
Total amount carried to surplus fund*.....		4,155 85	4 00			72 06	439,731 52
Amount drawn from appropriations by war-warrants, transfer account, act approved March 3, 1878*.....							616 55
Aggregated*.....	150,018 00	100,000 00	50,000 00	30,000 00	15,000 00	25,000 00	13,010,740 99

QUARTERMASTER-GENERAL.

1875-'76.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.	Clothing and equipage.	National cemeteries.	Hospitals.
Appropriations for the fiscal year, act approved March 3, 1875	\$4,250,000 00	\$1,200,000 00	\$300,000 00	\$1,500,000 00	\$4,000,000 00	\$1,450,000 00	\$150,000 00	\$100,000 00
Reappropriated, act approved March 3, 1875	.....	.....	.....	.....	.....	.....	.....	.....
Appropriation for the fiscal year, act approved July 31, 1876	.....	.....	.....	.....	.....	.....	.....	.....
Total appropriations for fiscal year to June 30, 1879	4,250,000 00	1,200,000 00	300,000 00	1,500,000 00	4,000,000 00	1,450,000 00	150,000 00	100,000 00
Amount expended *	3,843,243 17	1,159,698 10	291,633 49	1,468,473 27	3,987,780 12	1,276,013 76	149,695 41	96,564 76
Amount carried to surplus fund June 30, 1878	406,751 98	40,269 74	8,366 51	30,652 62	11,662 04	173,093 36	285 59	3,435 24
Amount carried to surplus fund June 30, 1879	4 85	32 07	.....	874 11	557 84	866 13	19 00	.....
Total amount carried to surplus fund *	406,756 83	40,301 81	8,366 51	31,526 73	12,219 88	173,959 49	304 59	3,435 24
Balance to credit of appropriations June 30, 1879 *	.....	.....	.....	.....	.....	26 75	.....	.....
*Aggregated	4,250,000 00	1,200,000 00	300,000 00	1,500,000 00	4,000,000 00	1,450,000 00	150,000 00	100,000 00

1875-'76—Continued.

Appropriations, &c.	Military prison, Fort Leavenworth.	Purchase of site, Fort Brown, Tex.	Purchase of site, Fort Duncan, Tex.	Purchase of site, Ringgold Barracks.	Military road in Arizona.	Rent of Quartermaster-General's Office.	Headstones.	Total.
Appropriations for the fiscal year, act approved March 3, 1875	\$100,000 00	\$25,000 00	\$10,000 00	\$10,000 00	\$15,000 00	.....	.....	\$13,110,000 00
Reappropriated, act approved March 3, 1875	.....	.....	.....	.....	.....	.....	.....	149,034 48
Appropriation for the fiscal year, act approved July 31, 1876	.....	.....	.....	.....	.....	\$10,000 00	.....	10,000 00
Total appropriations for fiscal year to June 30, 1879	100,000 00	25,000 00	10,000 00	10,000 00	15,000 00	10,000 00	149,034 48	13,269,034 48
Amount expended *	99,555 59	.....	.....	.....	15,000 00	10,000 00	149,033 89	12,546,691 65
Amount carried to surplus fund June 30, 1878	444 41	.....	.....	.....	.....	.....	.....	674,961 49
Amount carried to surplus fund June 30, 1879	.....	.....	.....	.....	.....	.....	59	2,354 59
Total amount carried to surplus fund*	444 41	.....	.....	.....	.....	.....	59	677,316 08
Balance to credit of appropriations June 30, 1879*	.....	25,000 00	10,000 00	10,000 00	.....	.....	.....	45,026 75
Aggregated*	100,000 00	25,000 00	10,000 00	10,000 00	15,000 00	10,000 00	149,034 48	13,269,034 48

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued.

1876-'77.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.	Clothing and equipage.	National cemeteries.	Hospitals.
Appropriation for fiscal year, act approved July 3, 1876								
Appropriation for fiscal year, act approved July 22, 1876								
Appropriations for fiscal year, act approved July 24, 1876	\$3,750,000 00	\$850,000 00	\$250,000 00	\$1,150,000 00	\$3,500,000 00	\$400,000 00	\$125,000 00	\$100,000 00
Appropriation for fiscal year, act approved July 31, 1876								
Appropriations for fiscal year, act approved August 15, 1876	216,000 00		337,500 00		234,800 00	206,000 00		
Appropriation for the fiscal year, act approved January 24, 1877								
Appropriation for deficiencies, act approved April 30, 1878					1,200,000 00			
Appropriation for fiscal year, act approved March 3, 1879		3,078 07						
Total appropriations for fiscal year, to June 30, 1879.	3,966,000 00	853,078 07	587,500 00	1,150,000 00	4,934,800 00	606,000 00	125,000 00	100,000 00
Amount expended	3,865,510 27	852,646 36	581,459 39	1,138,701 72	4,689,795 21	535,520 35	124,998 75	97,686 75
Amount carried to surplus fund June 30, 1879	100,489 73	431 71	6,040 61	11,298 28		70,479 65	1 25	2,313 25
Balance to credit of appropriations June 30, 1879					245,004 79			
Aggregate	3,966,000 00	853,078 07	587,500 00	1,150,000 00	4,934,800 00	606,000 00	125,000 00	100,000 00

1876-'77—Continued.

Appropriations, &c.	Military prison, Fort Leavenworth.	Post on Yellowstone.	Pay of superintendents national cemeteries.	Military road to Fort Randall, Dak.	Rent of Quartermaster-General's Office.	Total.
Appropriation for fiscal year, act approved July 3, 1876					\$12,000 00	\$12,000 00
Appropriation for fiscal year, act approved July 22, 1876				\$200,000 00		200,000 00
Appropriations for fiscal year, act approved July 24, 1876						10,182,750 00
Appropriation for fiscal year, act approved July 31, 1876				\$57,750 00		61,688 15
Appropriation for fiscal year, act approved August 15, 1876	\$61,688 15					904,300 00
Appropriation for fiscal year, act approved January 24, 1877						2,500 00
Appropriation for deficiencies, act approved April 30, 1878					\$2,500 00	1,200,000 00
Appropriation for fiscal year, act approved March 3, 1879						3,078 07
Total appropriations for fiscal year, to June 30, 1879.	61,688 15	200,000 00	57,750 00	2,500 00	12,000 00	12,656,316 22
Amount expended	61,324 13	199,998 16	57,458 31	2,500 00	12,000 00	12,219,599 40
Amount carried to surplus fund June 30, 1879	364 02	1 84	291 69			191,712 03
Balance to credit of appropriations June 30, 1879						245,004 79
Aggregate	61,688 15	200,000 00	57,750 00	2,500 00	12,000 00	12,656,316 22

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued.

1877-'78.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.	Clothing and equipage.	National cemeteries.	Hospitals.	Military prison, Fort Leavenworth.	Pay of superintendents national cemeteries.	Total.
Appropriation for fiscal year, act approved March 3, 1877									\$40,000 00		\$40,000 00
Appropriations for fiscal year, act approved November 21, 1877	\$3,700,000 00	\$800,000 00	\$200,000 00	\$1,100,000 00	\$4,200,000 00	\$900,000 00	\$125,000 00	\$50,000 00		\$59,000 00	11,134,000 00
Appropriation for deficiencies, act approved June 14, 1878									4,277 64		4,277 64
Appropriation for fiscal year, act approved March 3, 1879		3,102 05									3,102 05
Total appropriations for fiscal year to June 30, 1879	3,700,000 00	803,102 05	200,000 00	1,100,000 00	4,200,000 00	900,000 00	125,000 00	50,000 00	44,277 64	59,000 00	11,181,379 69
Amount expended	3,440,740 11	802,959 68	176,010 03	1,094,897 53	4,179,877 79	777,908 82	124,956 90	48,997 84	44,277 64	55,535 31	10,746,161 65
Balance to credit of appropriations June 30, 1879	259,259 89	142 37	23,989 97	5,102 47	20,122 21	122,091 18	43 10	1,002 16		3,464 69	435,218 04
Aggregate	3,700,000 00	803,102 05	200,000 00	1,100,000 00	4,200,000 00	900,000 00	125,000 00	50,000 00	44,277 64	59,000 00	11,181,379 69

Statement of the appropriations for the Quartermaster's Department for each of the fiscal years which ended June 30, 1872, to June 30, 1879, &c.—Continued.

1878-79.

Appropriations, &c.	Regular supplies.	Incidental expenses.	Horses.	Barracks and quarters.	Army transportation.	Clothing and equipage.	National cemeteries.	Hospitals.	Military prison, Fort Leavenworth.
Appropriations for fiscal year, act app'd June 18, 1878	\$3,350,000 00	\$1,000,000 00	\$200,000 00	\$880,000 00	\$4,200,000 00	\$900,000 00	\$100,000 00	\$75,000 00	.....
Appropriations for fiscal year, act app'd June 20, 1878	.....	.....	.....	.....	.....	.....	.....	.....	\$66,469 00
Appropriation for fiscal year, act app'd June 20, 1878	.....	.....	.....	.....	.....	.....	.....	.....	.....
Appropriation for fiscal year, act app'd Feb. 3, 1879	.....	.....	.....	.....	.....	.....	.....	.....	.....
Appropriations for fiscal year, act app'd Mar. 3, 1879	.....	.....	.....	2,391 67	.....	.....	.....	.....	.....
Total appropriations for fiscal year	3,350,000 00	1,000,000 00	200,000 00	882,391 67	4,200,000 00	900,000 00	100,000 00	75,000 00	66,469 00
Amount expended and in hands of officers	3,291,163 78	1,000,000 00	197,127 50	882,384 17	4,109,003 91	772,323 33	88,598 27	74,996 14	42,434 69
Drawn by the Commissary-General of Subsistence	.....	.....	.....	.....	.....	.....	.....	.....	12,135 50
Balance to credit of appropriations June 30, 1879	58,836 22	.....	2,872 50	7 50	90,996 09	127,676 67	11,401 73	3 86	11,898 81

Appropriations, &c.	Pay of superintendents national cemeteries.	Headstones for graves in private cemeteries.	Military post near the Black Hills.	Military post near northern boundary of Montana.	Macadamized road at Vicksburg, Miss.	Protection of Confederate cemetery on Johnson's Island, Ohio.	Erection of barracks at Fortress Monroe, Va.	Removing remains of officers to national cemeteries.	Total.
Appropriations for fiscal year, act app'd June 18, 1878	\$59,000 00	.....	\$100,000 00	\$100,000 00	.....	.....	.....	.....	\$10,964,000 00
Appropriations for fiscal year, act app'd June 20, 1878	.....	.....	.....	.....	.....	\$1,500 00	\$25,000 00	\$5,000 00	97,969 00
Appropriation for fiscal year, act app'd June 20, 1878	.....	.....	.....	.....	.....	.....	.....	.....	7,000 00
Appropriation for fiscal year, act app'd Feb. 3, 1879	.....	\$192,027 49	.....	.....	\$7,000 00	.....	.....	.....	192,027 49
Appropriation for fiscal year, act app'd Mar. 3, 1879	.....	.....	.....	.....	.....	.....	.....	.....	2,391 67
Total appropriations for fiscal year	59,000 00	192,027 49	100,000 00	100,000 00	7,000 00	1,500 00	25,000 00	5,000 00	11,263,388 16
Amount expended and in hands of officers	56,369 32	10,000 00	100,000 00	100,000 00	7,000 00	1,500 00	25,000 00	100 00	10,758,001 11
Drawn by the Commissary-General of Subsistence	.....	.....	.....	.....	.....	.....	.....	.....	12,135 50
Balance to credit of appropriations June 30, 1879	2,630 68	182,027 49	.....	.....	.....	.....	.....	4,900 00	493,251 55

Amounts estimated for by disbursing officers of the Quartermaster's Department, from appropriations for the fiscal year 1878-'79.

Military divisions, departments, &c.	Regular sup- plies.	Incidental ex- penses.	Cavalry and ar- tillery horses.	Barracks and quarters.	Transportation of the Army and its sup- plies.	Clothing and equipage.	National cem- eteries.	Construction and repair of hospitals.	Pay of superin- tendents of national cem- eteries.
Headquarters Military Division of the Atlantic.....	\$7,016 00	\$12,654 25	\$4,725 00	\$2,296 20	\$23,521 24				
Department of the East.....	114,718 07	55,861 40	2,225 00	103,974 99	108,374 99	\$3,814 10	\$19,341 82	\$6,632 75	\$17,505 00
Department of the South.....	33,288 83	29,424 40		50,958 91	73,482 81		33,242 17	12,271 47	23,290 66
Total Military Division of the Atlantic.....	155,022 90	97,940 05	6,950 00	157,230 10	205,379 04	3,814 10	52,583 99	18,904 22	45,795 66
Headquarters Military Division of the Missouri.....	74,608 61	59,324 75	114,055 00	74,084 59	462,069 87	3,655 00	900 00		
Department of the Missouri.....	670,849 83	100,486 68		42,172 49	484,710 55	1,838 50	6,514 85	9,423 45	7,145 00
Department of Dakota.....	800,131 00	97,144 78	5,150 00	145,630 75	765,256 70	3,715 09		2,820 07	
Department of the Platte.....	318,883 11	104,025 95		133,505 62	481,611 14	1,700 00	1,190 44	3,793 19	1,705 00
Department of Texas.....	478,300 74	67,984 25		61,131 13	367,569 90		1,565 00	6,592 04	1,560 00
Depot at Chicago.....	776 53	13,252 28		9,028 34	57,570 00				
Depot at Saint Louis.....	344 50	650 00		867 70	11,349 25				
Total Military Division of the Missouri.....	2,343,894 32	442,868 69	119,205 00	466,420 62	2,630,137 41	10,908 59	10,170 29	22,628 75	10,410 00
Military Division of the Pacific.....	1,205,446 33	285,264 06	146,739 50	237,418 02	1,248,225 34	70,748 73		26,797 24	
Depot at Washington.....	102,565 43	136,954 37		162,252 94	49,588 59		31,293 19		2,780 00
Depot at Philadelphia.....	3,180 78	26,625 87		4,339 55	74,709 25	610,385 32	25 11		
Depot at New York.....	16,231 74	41,264 95	1,250 00	31,314 35	114,529 00	11 25			
Depot at Jeffersonville.....	10,110 72	43,023 17		3,165 96	83,979 39	167,938 89	301 30		1,375 00
Military prison at Fort Leavenworth.....		3,190 00			1,800 00	14,070 85		315 00	
Disbursing agency at Louisville, Ky.....		2,555 00			32,000 00				
West Point, N. Y.....	18,901 17	9,268 65	1,600 00	1,120 05	674 30				
Columbus Barracks, Ohio.....	3,043 15	2,890 00		2,143 30	28,593 12	6 00		54 00	
Jefferson Barracks, Missouri.....		6,407 96		17,403 69	1,486 60	155 06		2,070 30	
Willetts Point, New York Harbor.....		1,270 05						539 24	
David's Island, New York Harbor.....	416 08	4,267 54		7,730 91	12,778 27			8,927 60	
Springfield Armory.....	804 52	211 80							
Geographical Survey West of 100th Meridian.....	7,756 13	7,685 20		495 00	14,125 00	100 00			
Allegheny Arsenal.....	998 82	35 00			100 00	20 00			
Augusta Arsenal.....	460 88	331 05			146 10				
Frankford Arsenal.....		150 00			12 50				
Indianapolis Arsenal.....	1,195 73	9 10							
Kennebec Arsenal.....	534 70	30 00							
Rock Island Arsenal.....	2,663 09	140 00			1,050 00				
Watertown Arsenal.....	1,721 03	64 55			188 80				
Watervliet Arsenal.....	1,634 88	60 00			350 11				
Total.....	3,876,582 40	1,112,507 06	275,744 50	1,091,034 49	4,499,852 82	878,158 79	94,373 88	80,236 35	60,360 66

Amounts estimated for by disbursing officers of the Quartermaster's Department, from appropriations for the fiscal year 1878-'79.—Continued.

Military divisions, departments, &c.	Military prison.	Contingencies of the Army.	Macedamized road at Vicksburg, Miss.	Protection of Confederate cemetery at Johnson's Island, Ohio.	Military post near north boundary of Montana.	Military post near the Black Hills.	Removal of remains of officers to national cemeteries.	Erection of barracks at Fort Monroe.	Total amount estimated for.
Headquarters Military Division of the Atlantic									\$50,212 69
Department of the East								\$25,000 00	457,448 12
Department of the South									260,959 25
Total Military Division of the Atlantic								25,000 00	768,620 06
Headquarters Military Division of the Missouri							\$100 00		788,797 82
Department of the Missouri									1,323,141 35
Department of Dakota					\$100,000 00	\$100,000 00			2,019,848 39
Department of the Platte									1,046,414 45
Department of Texas									984,703 06
Depot at Chicago									80,627 15
Depot at Saint Louis									13,211 45
Total Military Division of the Missouri					100,000 00	100,000 00	100 00		6,256,743 67
Military Division of the Pacific		\$1,000 00							3,221,639 22
Depot at Washington									493,934 52
Depot at Philadelphia			\$7,000 00	\$1,500 00					719,265 88
Depot at New York									204,601 29
Depot at Jeffersonville									309,894 43
Military prison at Fort Leavenworth	\$38,549 59								57,925 44
Disbursing agency at Louisville, Ky									34,555 00
West Point, N. Y.									31,564 17
Columbus Barracks, Ohio									36,729 57
Jefferson Barracks, Missouri									27,523 61
Willeys Point, New York Harbor									1,809 29
David's Island, New York Harbor									34,120 40
Springfield Armory									1,016 32
Geographical Survey West of 100th Meridian									30,161 33
Allegheny Arsenal									1,153 82
Augusta Arsenal									938 03
Frankford Arsenal									162 50
Indianapolis Arsenal									1,204 83
Kennebec Arsenal									564 70
Rock Island Arsenal									3,853 09
Watertown Arsenal									1,974 38
Watervliet Arsenal									2,044 99
Total	38,549 59	1,000 00	7,000 00	1,500 00	100,000 00	100,000 00	100 00	25,000 00	12,242,000 54

Amounts remitted to disbursing officers of the Quartermaster's Department from appropriations for the fiscal year 1878-79.

Military divisions, departments, &c.	Regular supplies.	Incidental expenses.	Cavalry and artillery horses.	Barracks and quarters.	Transportation of the Army and its supplies.	Clothing and equipage.	National cemeteries.	Construction and repair of hospitals.	Pay of superintendents of national cemeteries.
Headquarters Military Division of the Atlantic.....	\$7,000 00	\$12,536 10	\$4,725 00	\$2,296 20	\$23,521 24				
Department of the East.....	114,719 67	55,723 65	2,225 00	93,682 70	105,927 27	\$3,708 60	\$18,496 05	\$5,604 75	\$10,505 00
Department of the South.....	32,881 80	28,860 00		48,710 33	57,329 37		29,377 77	12,271 47	25,704 32
Total Military Division of the Atlantic.....	154,601 47	97,119 75	6,950 00	144,689 23	186,777 88	3,708 60	47,873 82	17,876 22	42,209 32
Headquarters Military Division of the Missouri.....	64,578 61	56,324 75	96,230 00	62,153 10	462,069 87	3,455 00	900 00		
Department of the Missouri.....	627,761 70	99,817 93		41,383 16	445,007 26	1,845 50	5,296 85	9,423 45	6,600 00
Department of Dakota.....	865,083 33	97,031 29	3,750 00	66,180 49	683,344 58	3,498 84		2,819 25	
Department of the Platte.....	318,796 17	100,328 65		115,134 96	423,338 04	1,420 00	1,340 44	3,793 84	1,500 00
Department of Texas.....	478,300 54	66,704 35		50,049 69	346,067 15		1,160 60	4,623 04	1,560 00
Depot at Chicago.....	776 53	13,252 28		7,552 34	57,570 00				
Depot at Saint Louis.....	344 50	650 00		867 70	11,349 25				
Total Military Division of the Missouri.....	2,355,641 38	434,109 25	90,980 00	343,321 44	2,428,746 75	9,914 34	8,697 89	20,659 58	9,660 00
Military Division of the Pacific.....	737,013 76	191,722 21	89,530 00	176,251 37	1,048,276 38	67,436 71		24,717 70	
Depot at Washington.....	97,565 43	131,954 37		161,052 94	48,588 59		31,745 15		3,000 00
Depot at Philadelphia.....	3,180 78	26,615 87	4,844 63	4,396 75	74,676 75	602,761 26	25 11		
Depot at New York.....	16,231 74	41,141 08	1,250 00	27,688 22	113,702 00	11 25			
Depot at Jeffersonville.....	10,110 72	43,143 17		3,165 96	81,859 39	165,821 64	256 30		1,500 00
Military Prison at Fort Leavenworth.....		2,940 00			1,800 00	12,745 85		155 00	
Disbursing Agency at Louisville, Ky.....		2,520 00			32,000 00				
West Point, N. Y.....	18,900 96	3,053 42	1,600 00	1,080 46	674 30			54 00	
Columbus Barracks, Ohio.....	2,736 15	2,915 10		2,350 95	20,093 12	6 00			
Jefferson Barracks, Missouri.....		6,050 11		16,954 22	1,486 60	105 06		2,070 25	
Willetts Point, New York Harbor.....		684 35						539 24	
David's Island, New York Harbor.....	416 08	4,267 54		7,730 91	11,829 49			8,927 60	
Springfield Armory.....	704 52	211 80							
Geographical Survey West of 100th Meridian.....	7,756 13	7,685 20		495 00	14,125 00	100 00			
Allegheny Arsenal.....	998 82	35 00			100 00	10 00			
Augusta Arsenal.....	427 77	331 05			126 10				
Frankford Arsenal.....		150 00			12 50				
Indianapolis Arsenal.....	1,009 98	9 10							
Kennebec Arsenal.....		30 00							
Rock Island Arsenal.....	2,542 82	140 00			1,050 00				
Watertown Arsenal.....	1,548 77	54 80			130 00				
Watervliet Arsenal.....	1,566 90	60 00			350 00				
Total.....	3,413,488 88	1,002,943 17	204,154 63	889,177 45	4,066,404 85	862,620 71	88,598 27	74,999 59	56,369 32

Amounts remitted to disbursing officers of the Quartermaster's Department from appropriations for the fiscal year 1878-79—Continued.

Military divisions, departments, &c.	Military prison.	Contingencies of the Army.	Macadamized road at Vicksburg, Miss.	Protection of Confederate cemetery at Johnson's Island, Ohio.	Military post near north boundary of Montana.	Military post near the Black Hills.	Removal of remains of officers to national cemeteries.	Erection of barracks at Fort Monroe.	Total amount remitted.
Headquarters Military Division of the Atlantic									\$50,078 54
Department of the East								\$25,000 00	441,592 69
Department of the South									235,135 06
Total Military Division of the Atlantic								25,000 00	726,806 29
Headquarters Military Division of the Missouri							\$100 00		745,811 33
Department of the Missouri									1,237,135 85
Department of Dakota					\$100,000 00	\$100,000 00			1,921,402 78
Department of the Platte									965,652 70
Department of Texas									948,465 37
Depot at Chicago									79,151 15
Depot at Saint Louis									13,211 45
Total Military Division of the Missouri					100,000 00	100,000 00	100 00		5,910,830 63
Military Division of the Pacific		\$1,000 00							2,335,948 13
Depot at Washington									482,406 48
Depot at Philadelphia			\$7,000 00	\$1,500 00					716,501 15
Depot at New York									200,024 29
Depot at Jeffersonville									305,857 18
Military Prison at Fort Leavenworth	\$42,434 69								60,075 54
Disbursing Agency at Louisville, Ky.									34,520 00
West Point, N. Y.									31,309 14
Columbus Barracks, Ohio									28,155 32
Jefferson Barracks, Missouri									26,666 24
Willets Point, New York Harbor									1,223 59
David's Island, New York Harbor									33,171 62
Springfield Armory									916 32
Geographical Survey West of 100th Meridian									30,161 33
Allegheny Arsenal									1,143 82
Augusta Arsenal									884 92
Frankford Arsenal									162 50
Indianapolis Arsenal									1,019 08
Kennebec Arsenal									564 70
Rock Island Arsenal									3,732 82
Watertown Arsenal									1,733 57
Watervliet Arsenal									1,976 90
Total	42,434 69	1,000 00	7,000 00	1,500 00	100,000 00	100,000 00	100 00	25,000 00	10,935,791 56

The accounts and vouchers which have been examined in this office since the last annual report show approved disbursements as follows:

Appropriations.	For what fiscal year.									Total.
	1871 and prior years.	1871-'72.	1872-'73.	1873-'74.	1874-'75.	1875-'76.	1876-'77.	1877-'78.	1878-'79.	
Regular supplies	\$24,431 23	\$366 10	\$682 59	\$504 95	\$247 89	\$722 16	\$47,461 91	\$2,155,164 88	\$1,054,406 25	\$3,283,987 96
Incidental expenses	22,370 09	25	2,385 51	8,474 25	2,750 55	304 20	17,307 55	537,731 33	306,261 30	897,585 03
Horses, cavalry, and artillery.....	10,294 86						8,002 98	186,571 52	35,549 00	240,418 36
Barracks and quarters.....	35,166 09	268 80		30 00	64 56	169 00	53,515 77	853,307 05	308,745 98	1,251,267 25
Army transportation	101,218 52		281 32	42,350 21	75 25	2,926 03	475,994 46	2,330,013 95	1,253,405 21	4,206,264 95
Clothing of the Army.....	138 55		239 82	11 35			70,692 93	653,238 51	152,482 29	876,803 45
National cemeteries	833 85	40 00				1,617 87	10,357 11	58,238 13	11,946 07	83,033 03
Pay of superintendents of national cemeteries.....					810 00	800 00	1,961 00	33,802 06	17,725 00	55,098 06
Hospitals.....							4,231 60	41,042 75	21,923 16	67,197 51
Military prison.....								37,587 35	20,224 78	57,812 13
Post on the Loupe River.....								22 50	79 06	101 56
Removing officers' remains.....									100 00	100 00
Headstones for soldiers' graves.....				18,418 03				31,824 27		50,242 30
Posts on Yellowstone, &c.....							653 94	21,681 46		22,335 40
Military roads.....								365 00		365 00
Depot buildings at San Antonio, Tex.....								1,484 89		1,484 89
Officers' transportation	923 17									923 17
Total	195,376 36	675 15	3,589 24	69,788 79	3,948 25	6,539 26	690,179 25	6,942,075 65	3,182,848 10	11,095,020 05

The following tables exhibit the number of money-accounts and property-returns on hand at the commencement of the fiscal year, the number received and examined during the year, and the number remaining on hand unexamined at the close of the year :

Money-accounts.

	In what calendar year.			Total.
	1877.	1878.	1879.	
On hand July 1, 1878		487		487
Received during the year	7	2,065	1,521	3,593
Total	7	2,552	1,521	4,080
Examined during the year	7	2,552	262	2,821
Remaining on hand July 1, 1879			1,259	1,259

Property-returns.

	In what calendar year.			Total.
	1877.	1878.	1879.	
On hand July 1, 1878		574		574
Received during the year	29	2,651	916	3,596
Total	29	3,225	916	4,170
Examined during the year	29	2,721		2,750
Remaining on hand July 1, 1879		504	916	1,420

Statement showing the amounts expended by officers in the Quartermaster's Department during, and on account of the appropriations for, the fiscal year ending June 30, 1879, and balances in their hands, so far as shown by accounts received at this office.

Names of officers.	Expenditures.	Balances.
Atwood, Capt. E. B., assistant quartermaster	\$107,965 99	\$4,354 16
Arnold, Maj. Isaac, jr., Ordnance Department	926 45	
Abbott, Lieut. Asa T., Third Artillery	2,053 30	
Allgood, Capt. C. A., military storekeeper, Quartermaster's Department	2,786 57	88 08
Adams, Lieut. John Q., First Cavalry	18,012 45	10,733 34
Armstrong, Lieut. R. G., First Infantry	685 62	
Andrus, Lieut. E. P., Fifth Cavalry	3,597 30	11 00
Allison, Lieut. J. N., Second Cavalry	13,863 60	4,745 29
Ames, Lieut. L. S., Second Infantry	5,044 31	2,670 19
Allen, Lieut. W., Twelfth Infantry	1,660 96	
Anderson, Lieut. George L., Fourth Artillery	142 20	
Bingham, Lieut. Col. J. D., deputy quartermaster-general	3,778 80	
Batchelder, Maj. R. N., quartermaster	168,531 45	42,554 87
Belger, Maj. James, quartermaster	16,811 25	691 41
Baker, Maj. E. D., quartermaster	35,469 23	3,378 71
Bradley, Capt. G. W., assistant quartermaster	237,256 84	18,497 97
Barstow, Capt. S. F., assistant quartermaster	2,353 14	105 51
Belcher, Capt. J. H., assistant quartermaster	96,758 60	
Blunt, Capt. A. P., assistant quartermaster	49,495 03	2,330 44
Brinkerhoff, Capt. H. R., Fifteenth Infantry	2,114 62	
Bird, Lieut. Charles, Twenty-third Infantry	61,810 44	821 47
Bottsford, Lieut. C. E., Tenth Infantry	2,493 47	
Barrett, Lieut. Gregory, Tenth Infantry	3,146 14	1,193 90
Bishop, Lieut. John S., Thirteenth Infantry	4,071 99	896 87
Ballance, Lieut. John G., Twenty-second Infantry	3,219 58	288 88
Brush, Lieut. D. H., Seventeenth Infantry	694 70	
Badger, Lieut. William, Sixth Infantry	659 40	
Burns, Lieut. J. M., Seventeenth Infantry	1,078 30	
Budd, Lieut. O. W., Fourth Cavalry	5,800 88	
Bean, Capt. J. W., Fifteenth Infantry	4,173 26	
Burnham, Lieut. D. R., Fifteenth Infantry	8,390 05	932 85

Statement showing the amounts expended by officers, &c.—Continued.

Names of officers.	Expenditures.	Balances.
Baldwin, Lieut. John A., Ninth Infantry	\$3,475 51	
Briggs, Lieut. Thomas B., Fourteenth Infantry	369 65	
Bishop, Lieut. H. S., Fifth Cavalry	9,828 90	
Bubb, Capt. John W., Fourth Infantry	10,725 48	
Baldwin, Lieut. J. H., Eighteenth Infantry	5,349 63	
Bartlett, Lieut. W. C., Third Infantry	5,594 71	\$346 93
Benson, Lieut. H. M., Seventh Infantry	1,696 20	
Barnard, Lieut. P. P., Fifth Cavalry	42,085 67	2,812 57
Baily, Lieut. Charles M., Eighth Infantry	12,423 24	
Bailey, Lieut. A. S., Sixth Cavalry	4,752 79	
Booth, Lieut. Charles A., First Infantry	3,826 29	
Buck, Lieut. William L., Thirteenth Infantry	777 96	
Bailey, Lieut. E. L., Fourth Infantry	353 05	
Baldwin, Lieut. John M., Fifth Artillery	520 68	
Bailey, Lieut. H. L., Twenty-first Infantry	160 20	
Bonus, Lieut. P. S., First Cavalry	4,692 82	2,861 20
Chandler, Lieut. Col. J. G., deputy quartermaster-general	70,213 84	2,641 82
Card, Maj. B. C., quartermaster	456,263 07	14,980 02
Constable, Capt. N. S., assistant quartermaster	8,390 24	
Campbell, Capt. L. E., assistant quartermaster	60,574 42	4,310 03
Clifford, Capt. J. C., Ordnance Department	6,934 05	
Custer, Lieut. B. M., Twenty-fourth Infantry	5,282 15	55 60
Cavenaugh, Lieut. H. G., Thirteenth Infantry	5,957 90	
Campbell, Lieut. William J., Twenty-second Infantry	2,041 40	
Conway, Lieut. William, Twenty-second Infantry	10 80	
Cotton, Lieut. G. P., First Artillery	2,987 73	14 25
Crittenden, Lieut. John J., Twenty-second Infantry	566 78	
Cooke, Lieut. L. W., Third Infantry	7,858 20	303 83
Chase, Lieut. George N., Fourth Infantry	5,311 87	
Capron, Lieut. T. H., Ninth Infantry	12,499 16	107 56
Clark, Lieut. S. E., Second Infantry	25,044 83	1,273 99
Craigie, Lieut. D. J., Twelfth Infantry	28,086 45	
Carter, Lieut. W. H., Sixth Cavalry	39,074 04	
Craig, Lieut. L. A., Sixth Cavalry	1,824 90	
Clark, Lieut. W. O., Sixth Cavalry	7,320 01	418 24
Comba, Capt. Richard, Seventh Infantry	81 29	
Colburn, J. E., consul-general United States in Mexico	377 13	
Cummings, Lieut. J. F., Third Cavalry	7,719 31	460 84
Chapin, Lieut. E. S., Fourth Artillery	1,775 96	
Clark, Lieut. D. H., Fifteenth Infantry	914 30	
Cherry, Lieut. S. A., Fifth Cavalry	70 00	
Curry, Lieut. James, Fifth Artillery	2,931 36	21 92
Cornish, Lieut. George A., Fifteenth Infantry	1,134 47	211 31
Cornman, Lieut. Daniel, Twenty-first Infantry	2,435 17	
Coale, Lieut. J. H., Second Cavalry	1,893 32	961 77
Dana, Maj. J. J., quartermaster	275,236 05	16,877 20
Dandy, Maj. G. B., quartermaster	252,272 35	23,756 08
Dawson, Capt. Byron, Ninth Cavalry	5,350 79	
Duggan, Lieut. W. T., Tenth Infantry	3,196 22	486 45
Davis, Lieut. Edward, Third Artillery	2,801 26	
Dodd, Lieut. George A., Third Cavalry	543 30	
Douglas, Lieut. S. R., Seventh Infantry	4,883 41	
Dimmick, Lieut. E. D., Ninth Cavalry	1,394 37	
De Lany, Lieut. C. M., Fifteenth Infantry	601 95	
Duncan, Lieut. J. W., Twenty-first Infantry	10,045 46	1,685 29
Drew, Capt. George A., Third Cavalry	7,889 47	
Davis, Lieut. Thomas F., Fifteenth Infantry	1,159 45	195 83
Davis, Lieut. William, jr., Tenth Cavalry	4,034 10	25 49
Drum, Lieut. John, Tenth Infantry	69 80	
Easton, Col. L. C., assistant quartermaster-general	219,539 67	23,713 50
Ekin, Lieut. Col. J. A., deputy quartermaster-general	331,975 66	17,269 13
Eckerson, Capt. T. J., assistant quartermaster	82,008 35	10,139 75
Ewing, Lieut. E. S., Sixteenth Infantry	5,861 50	
Eastman, Lieut. J. E., Second Artillery	22 45	
Eaton, Lieut. George O., Fifth Cavalry	2,414 70	
Ebstein, Lieut. F. H. E., Twenty-first Infantry	304,761 82	68 25
Everett, Lieut. William, Fourth Artillery	1,057 90	
Edgerton, Lieut. W. P., Second Artillery	14 10	
Foster, Capt. C. W., assistant quartermaster	30,783 44	1,215 45
Furey, Capt. J. V., assistant quartermaster	346,064 73	17,787 54
Forsyth, Capt. L. C., assistant quartermaster	7,167 74	
Farley, Maj. J. P., Ordnance Department	439 76	
Flagler, Maj. D. W., Ordnance Department	1,456 59	
Footo, Lieut. George F., Eighth Cavalry	5,647 80	
Fowler, Lieut. J. L., Second Cavalry	39,415 00	
Fuger, Lieut. Frederick, Fourth Artillery	4,898 32	12 25
Farrow, Lieut. E. S., Twenty-first Infantry	2,530 50	
French, Lieut. F. H., Third Cavalry	405 50	53 00
Foster, Hon. J. W., Minister to Mexico	591 87	
Fountain, Lieut. S. W., Eighth Cavalry	176 75	
Gilliss, Capt. James, assistant quartermaster	177,298 22	20,568 49
Grimes, Capt. E. B., assistant quartermaster	196,947 38	886 17

Statement showing the amounts expended by officers, &c.—Continued.

Names of officers.	Expenditures.	Balances.
Grealish, Capt. M. J., ordnance storekeeper	\$875 83	
Griffith, Lieut. Emerson, Thirteenth Infantry	1, 523 99	
Gore, Lieut. J. M., Twenty-second Infantry	5, 515 28	
Gibbon, Lieut. D. J., Ninth Cavalry	6, 139 93	
Gustin, Lieut. J. H., Fourteenth Infantry	741 13	
Goodwin, Lieut. W. P., Fourteenth Infantry	69 00	
Gordon, Lieut. C. G., Sixth Cavalry	822 30	
Glenn, Lieut. E. F., Twenty-fifth Infantry	3, 745 70	\$130 80
Gerlach, Lieut. William, Third Infantry	972 25	
Gatewood, Lieut. C. B., Sixth Cavalry	573 75	
Gray, Capt. C. N., Twenty-fifth Infantry	3, 489 85	
Geary, Lieut. William L., Twelfth Infantry	1, 916 35	276 75
Gibbs, Lieut. E. B., Sixth Infantry	119, 463 54	41, 198 31
Gibson, Lieut. Frank M., Seventh Cavalry	2, 802 60	
Garst, Lieut. C. E., Fifteenth Infantry	3, 473 33	620 71
Getty, Lieut. R. N., Twenty-second Infantry	232 45	80
Holabird, Lieut. Col. S. B., deputy quartermaster-general	156, 909 02	64, 764 95
Hughes, Maj. W. B., quartermaster	151, 856 57	1, 878 65
Howell, Capt. W. T., assistant quartermaster	21, 544 77	1, 538 88
Hoyt, Capt. C. H., assistant quartermaster	573, 839 16	15, 405 77
Heintzelman, Capt. C. S., assistant quartermaster	26, 897 81	
Heath, Lieut. Frank, Ordnance Department	2, 047 23	205 03
Hoyt, Lieut. George S., Eighteenth Infantry	3, 501 19	
Huggins, Capt. E. L., Second Artillery	322 08	
Hobbs, Lieut. C. W., Third Artillery	2, 448 77	101 77
Hardie, Lieut. F. H., Third Cavalry	258 15	
Hardin, Lieut. E. E., Seventh Infantry	533 90	
Hoyt, Lieut. R. W., Eleventh Infantry	2, 654 43	97 78
Hull, Capt. G. A., military storekeeper, Quartermaster's Department	140, 438 19	1, 244 05
Hall, Lieut. W. P., Fifth Cavalry	10, 355 42	
Hall, Lieut. Joseph, Fourteenth Infantry	2, 866 70	
Hathaway, Lieut. F. H., Fifth Infantry	78, 404 53	16, 902 32
Henry, Lieut. A. M., Third Infantry	6, 105 53	856 14
Humphreys, Lieut. Charles, Third Artillery	2, 189 11	1, 817 00
Hubbard, Lieut. E. B., Second Artillery	2, 783 84	
Hunt, Lieut. L. P., Tenth Cavalry	18, 094 33	
Hall, Lieut. C. B., Nineteenth Infantry	2, 377 47	24 46
Harwood, Lieut. Paul, Twentieth Infantry	2, 699 53	
Hay, Lieut. Charles, Twenty-third Infantry	175 25	
Hewitt, Lieut. C. C., Nineteenth Infantry	1, 211 90	
Heyl, Lieut. C. H., Twenty-third Infantry	146 70	
Howard, Lieut. Guy, Twelfth Infantry	1, 627 65	
Haden, Lieut. John J., Eighth Infantry	528 55	
Howe, Lieut. Edgar W., Seventeenth Infantry	304 05	84 21
Holmes, Lieut. S. N., Thirteenth Infantry	1, 149 25	483 75
Ingalls, Col. Rufus, assistant quartermaster-general	219, 830 52	44, 101 69
Ingersoll, Maj. Edward, Ordnance Department	845 96	
Isley, Capt. C. S., Seventh Cavalry	25 00	
Janes, Maj. H. W., quartermaster	15, 019 37	
Jones, Lieut. F. B., Third Infantry	13, 714 29	590 42
Jacobs, Lieut. J. W., Seventh Infantry	5, 722 32	30 87
Johnson, Lieut. C. A., Fourteenth Infantry	1, 859 87	
Johnson, Lieut. Henry, jr., Eighth Infantry	125 00	125 00
Kirk, Capt. E. B., assistant quartermaster	6, 816 31	538 06
Kimball, Capt. A. S., assistant quartermaster	14, 794 30	612 00
Kingsbury, Lieut. G. W., Twelfth Infantry	1, 660 82	8, 000 00
Kendall, Lieut. H. M., Sixth Cavalry	8, 306 57	665 17
Kendrick, Lieut. F. M. H., Seventh Infantry	2 00	
Kimball, Lieut. W. A., Fourteenth Infantry	1, 217 43	
Kilpatrick, Lieut. A. E., Seventeenth Infantry	321 55	
Kinzie, Lieut. George H., Fifteenth Infantry	1, 913 39	130 20
Knower, Lieut. E. C., Third Artillery	1, 496 83	
Kell, Lieut. W. H., Twenty-second Infantry	28 82	
Ludington, Maj. M. I., quartermaster	205, 309 06	37, 240 52
Lee, Capt. J. G. C., assistant quartermaster	808, 161 05	13, 847 56
Lord, Capt. J. H., assistant quartermaster	69, 182 39	13, 958 77
Lewis, Lieut. Granville, Fifth Infantry	19, 922 61	
Lyon, Lieut. M. W., Ordnance Department	1, 275 77	94 55
Leefe, Lieut. J. G., Nineteenth Infantry	10, 586 26	477 29
Love, Lieut. George M., Sixteenth Infantry	4, 161 77	
Lovering, Lieut. L. A., Fourth Infantry	3, 389 93	
Lynch, Lieut. Edward, Eighth Infantry	2, 204 00	
Lawton, Capt. H. W., Fourth Cavalry	24, 939 02	191 80
Ladley, Lieut. O. D., Twenty-second Infantry	215 00	
Loughborough, Lieut. R. H. R., Twenty-fifth Infantry	158 40	
Luff, Lieut. Edmund, Eighth Cavalry	1, 225 61	672 85
Myers, Maj. William, quartermaster	745 00	
Moore, Maj. J. M., quartermaster	107, 386 69	
McGonnigle, Capt. A. J., assistant quartermaster	71, 692 29	5, 489 76
Miltimore, Capt. A. E., assistant quartermaster	9, 732 28	
Marshall, Capt. J. M., assistant quartermaster	38, 868 96	2, 549 79
Miller, Lieut. C. P., Fourth Artillery	28, 979 24	2, 284 10

Statement showing the amounts expended by officers, &c.—Continued.

Names of officers.	Expenditures.	Balances.
McGilvray, Lieut. John, Second Artillery	\$8,795 52	
Mount, Lieut. John F., Third Artillery	722 54	
Maurice, Lieut. T. D., Second Artillery	4,739 70	
Morton, Capt. Alfred, Ninth Infantry	2,307 35	
Murphy, Lieut. John, Fourteenth Infantry	1,597 88	\$167 37
Marye, Maj. W. A., Ordnance Department	317 12	
Miller, Lieut. W. H., First Cavalry	72,986 92	2,734 29
Martin, Capt. W. P., military storekeeper, Quartermaster's Department	55,722 48	
Metcalfe, Capt. Henry, Ordnance Department	137 50	
Markley, Lieut. A. C., Twenty-fourth Infantry	24,737 38	
Mann, Lieut. W. A., Seventeenth Infantry	3,094 55	
McKeever, Capt. Samuel, Second Infantry	4,077 59	
Mott, Lieut. Wallace, Eighth Infantry	2,029 95	416 05
Miller, Capt. James, Second Infantry	6,587 40	213 20
McGinness, Capt. John R., Ordnance Department	2,962 32	100 00
Nichols, Lieut. F. C., First Artillery	163 88	
Olmsted, Lieut. J. A., Thirtieth Infantry	4,253 64	613 50
Otis, Lieut. H. G., Fourth Artillery	220 25	18 75
Overton, Lieut. G. E., Sixth Cavalry	2,120 35	
O'Connell, Lieut. J. J., First Infantry	100 70	
O'Connell, Lieut. John, Eighth Infantry	135 45	528 55
Offley, Maj. R. H., Nineteenth Infantry	521 28	
Ogle, Lieut. Alexander, Seventeenth Infantry	1,906 35	
O'Brien, Lieut. John J., Fourth Infantry	1,270 35	31 74
Perry, Lieut. Col. A. J., deputy quartermaster-general	78,239 02	41,977 26
Pitman, Capt. John, Ordnance Department	1,719 12	14 45
Pond, Lieut. George E., Eighth Cavalry	5,208 97	140 60
Pratt, Lieut. Sedgwick, Third Artillery	5,777 59	115 67
Patterson, Lieut. R. H., First Artillery	1,190 69	
Pierce, Lieut. F. E., First Infantry	5,119 32	226 68
Palmer, Lieut. George H., Sixteenth Infantry	79 60	
Pagne, Lieut. S. S., Fifteenth Infantry	2,515 07	
Patterson, Lieut. George T. T., Fourteenth Infantry	3,056 50	
Pitcher, Lieut. W. L., Eighth Infantry	5,451 70	93 80
Powell, Lieut. J. W., Eighth Infantry	11,469 44	63 13
Patten, Lieut. F. J., Twenty-first Infantry	3,221 63	287 71
Pollock, Capt. Robert, Twenty-first Infantry	11,948 65	
Pierce, Lieut. Jacob R., Twenty-fourth Infantry	1,631 10	149 96
Perrine, Lieut. H. P., Sixth Cavalry	104 00	5,294 00
Quinn, Capt. J. B., Engineer Corps	1,223 59	
Quinby, Lieut. Ira, Eleventh Infantry	714 15	
Quinan, Lieut. W. R., Fourth Artillery	2,875 83	
Rucker, Col. D. H., assistant quartermaster-general	467,288 82	72,357 68
Reynolds, Maj. C. A., quartermaster	27,738 37	8,632 28
Robinson, Maj. A. G., quartermaster	20,549 24	
Rockwell, Capt. A. F., assistant quartermaster	465,193 89	22,424 60
Randolph, Lieut. B. H., Third Artillery	22,045 93	8,177 42
Ritzius, Lieut. H. P., Twenty-fifth Infantry	3,619 60	
Reade, Lieut. Harry, Twenty-fifth Infantry	847 75	
Robinson, Lieut. Fred'k, Fifth Artillery	519 45	
Reilly, Lieut. H. J., Fifth Artillery	6,201 63	82 50
Richmond, Lieut. E. T. C., Second Artillery	820 09	
Robinson, Lieut. W. W., jr., Seventh Cavalry	3,058 20	
Roach, Lieut. George H., Seventeenth Infantry	1,252 85	
Ruhlen, Lieut. George, Seventeenth Infantry	125,189 48	300 90
Rice, Lieut. W. F., Twenty-third Infantry	10,067 40	
Reynolds, Lieut. Bainbridge, Third Cavalry	4,083 27	
Rockwell, Lieut. C. H., Fifth Cavalry	7,430 75	
Russell, Lieut. E. K., First Artillery	745 80	12 55
Rodgers, Capt. John F., military storekeeper, Quartermaster's Department	64,281 53	808 67
Rucker, Capt. L. H., Ninth Cavalry	37,201 60	
Saxton, Lieut. Col. R., deputy quartermaster-general	15,069 12	16,283 99
Sawtelle, Maj. C. G., quartermaster	76,688 56	77,120 95
Scully, Capt. J. W., assistant quartermaster	1,450 28	
Smith, Capt. G. C., assistant quartermaster	53,749 78	124 19
Strang, Capt. E. J., assistant quartermaster	89,512 09	19,406 96
Simpson, Capt. John, assistant quartermaster	32,842 90	261 44
Stiles, Lieut. D. F., Tenth Infantry	5,884 63	120 31
Sanborn, Lieut. W. I., Twenty-fifth Infantry	252 90	
Schenck, Lieut. A. D., Second Artillery	5,001 09	126 28
Shaw, Lieut. R. G., First Artillery	345 20	
Smith, Capt. Lewis, Third Artillery	1,135 21	
Smith, Lieut. Theodore, Fifteenth Infantry	1,030 95	
Stafford, Lieut. S. R., Fifteenth Infantry	3,869 35	54 38
Scott, Lieut. John, Fourth Infantry	1,691 45	25 00
Shofner, Lieut. J. C., Twenty-first Infantry	7,228 26	
Scott, Lieut. George L., Sixth Cavalry	368 70	
Scantling, Lieut. J. C., Second Artillery	488 53	
Summerhayes, Lieut. J. W., Eighth Infantry	2,936 64	19 05
Stone, Lieut. E. W., Twenty-first Infantry	867 02	90 34
Sladen, Lieut. J. A., Fourteenth Infantry	21,478 76	
Sarson, Lieut. H. B., Second Infantry	3,655 57	

Statement showing the amounts expended by officers, &c.—Continued.

Names of officers.	Expenditures.	Balances.
Stanton, Lieut. William, Sixth Cavalry	\$6,906 50	\$2,657 67
Smith, Lieut. George R., Twelfth Infantry	1,087 57	
Shelton, Lieut. E. H., First Cavalry	505 03	
Smith, Lieut. O. M., Twenty-second Infantry	838 71	
Sparrow, Lieut. S. E., Twenty-first Infantry	498 70	
Sheridan, Lieut. Col. M. V., military secretary	297 56	
Stembel, Lieut. J. McB., Ninth Infantry	2,723 12	69 45
Shoemaker, Lieut. F. L., Fourth Cavalry	3,581 14	349 33
Shelby, Lieut. Isaac O., Sixteenth Infantry	628 73	50 61
Tompkins, Lieut. Col. C. H., deputy quartermaster-general	32,097 76	144,862 04
Taylor, Lieut. D. M., Ordnance Department	79 38	
Turner, Lieut. George L., Eighteenth Infantry	1,605 22	
Thorne, Capt. P. M., Twenty-second Infantry	3,633 65	
Troxel, Capt. T. G., Seventeenth Infantry	761 30	
Tolman, Capt. T. M., First Infantry	1,082 50	
Trout, Lieut. John F., Twenty-third Infantry	9,136 22	
Taylor, Lieut. S. W., Fourth Artillery	1,412 39	
Thorp, Lieut. Frank, Fifth Artillery	3,884 75	
Thies, Lieut. Frederick, Third Infantry	153 69	
Tassin, Lieut. A. G., Twelfth Infantry	1,205 00	
Tutherly, Lieut. H. E., First Cavalry	251 86	
Upham, Lieut. F. K., First Cavalry	8,734 40	
Ulio, Lieut. James, Second Infantry	8,420 45	
Varnum, Lieut. C. A., Seventh Cavalry	11,097 50	285 00
Von Schrader, Lieut. Frederick, Twelfth Infantry	1,660 57	10 00
Weeks, Maj. George H., quartermaster	254,919 73	46,995 02
Whistler, Lieut. G. N., Fifth Artillery	2,114 47	
White, Lieut. John C., First Artillery	863 80	
Wetherill, Lieut. A. M., Sixth Infantry	2,810 83	536 14
Wilhelmi, Lieut. Louis, First Infantry	187 40	
Wenle, Lieut. T. M., Nineteenth Infantry	12,398 47	1,268 73
Williams, Lieut. W. M., Nineteenth Infantry	642 20	
Woodbury, Lieut. T. C., Sixteenth Infantry	11,626 45	
Ward, Lieut. Henry C., Sixteenth Infantry	5,430 56	23 75
Wheeler, Lieut. H. W., Fifth Cavalry	1,363 65	
Whitney, Lieut. F. A., Eighth Infantry	1,861 60	
Wood, Lieut. P. G., Twelfth Infantry	6,568 90	
Wittich, Lieut. Willis, Twenty-first Infantry	8,510 39	
Winchester, Lieut. H. F., Sixth Cavalry	122 45	
Weston, Capt. John F., Subsistence Department	177,914 90	16,616 38
Woodward, Lieut. C. G., Third Artillery	318 98	
Wilson, Lieut. R. H., Eighth Infantry	1,940 90	6 31
Wilson, Lieut. J. L., Fourth Artillery	3,089 12	10 82
Wilson, Lieut. George S., Twelfth Infantry	1,834 00	
Wotherspoon, Lieut. W. W., Twelfth Infantry	10,224 78	776 25
Whitney, Lieut. John, Eleventh Infantry	1,288 50	
Ward, Lieut. F. K., First Cavalry	8,327 89	549 55
Woodruff, Capt. Carle A., Second Artillery	112 36	
Williams, Capt. C. W., assistant quartermaster	7,582 75	
Walker, Lieut. H. P., Seventeenth Infantry	231 75	
Wagner, Lieut. A. L., Sixth Infantry	364 50	
Young, Capt. D. J., ordnance storekeeper	1,918 63	64 08
Young, Lieut. George S., Seventh Infantry	292 99	
Total	9,700,217 71	1,034,800 55

The following table exhibits the number of wagons, spring-wagons, ambulances, harness, &c., on hand at the beginning and end of the fiscal year ending June 30, 1879, and purchased during the year, as shown by the returns of quartermasters' stores received at this office.

	On hand.	Purchased.	Sold, lost, destroyed, &c.	Remaining on hand.
Army wagons	2,218	432	282	2,045
Spring-wagons	350	18	18	218
Ambulances	139	9	19	167
Wagon harness	15,587	2,182	2,340	12,254
Ambulance harness	3,904	255	294	2,108
Cart harness	560	171	97	510

Statement of fuel, forage, and straw issued during the fiscal year ending June 30, 1879, as shown by the returns of quartermasters' stores received at this office.

	Cords.	Tons.	Bushels.
Wood, hard	42,096	.....	.....
Wood, soft	71,582	.....	.....
Coal, anthracite.....	19,391	.....
Coal, bituminous	16,279	.....
Hay	53,078	.....
Fodder	140	.....
Straw	2,462	.....
Oats	952,473
Corn	628,268
Barley.....	180,529
Bran	51,934

Returns have been made to this date of proceeds of sales of quartermasters' property to officers and soldiers of the Army during the last fiscal year, amounting to \$161,755.77.

This amount has been credited to appropriations as follows:

Regular supplies	\$61,690 88
Incidental expenses	100 60
Cavalry and artillery horses.....	2,927 00
Army transportation	8 50
Clothing and equipage	97,028 79

Reports received from officers, and consolidated in this office, show expenditures of appropriations for the Quartermaster's Department during the fiscal year ending June 30, 1879, as follows:

Appropriation.	1877-'78.	1878-'79.	Total.
REGULAR SUPPLIES.			
Stoves and ranges, heating and cooking	\$50,417 37	\$44,171 41	
Fuel	24,481 22	444,382 42	
Commutation of fuel to enlisted men	2,956 10	119,725 42	
Forage	88,472 33	1,313,345 18	
Straw for bedding.....	1,553 44	13,456 40	
Stationery	36,427 86	19,989 97	
Printing of division and department orders and reports.....		4,513 10	
All expenses not otherwise enumerated	20,577 76	29,095 04	
Total	224,886 08	1,988,678 94	\$2,213,565 02
INCIDENTAL EXPENSES.			
Postage and telegrams	6,958 18	1,587 06	
Extra-duty pay to enlisted men	3,146 90	127,892 00	
Expenses of expresses to and from frontier posts	415 00	2,879 03	
Interment of officers and soldiers	1,031 37	1,113 27	
Office furniture	815 16	10,881 70	
Hire of interpreters	991 96	6,994 66	
Hire of spies and guides	3,109 79	11,784 05	
Compensation of wagon and forage masters (act July 5, 1838) ..	67 00	3,313 50	
Compensation of clerks, storekeepers, draughtsmen, and agents in the Quartermaster's Department	8,201 07	292,211 82	
Apprehension of deserters and expenses incident to their pursuit.....	4,340 00	5,256 25	
Veterinary surgeons	24 00	2,179 25	
Veterinary tools and medicines	772 32	10,132 35	
Picket-ropes	3 90	108 96	
Horse and mule shoes	95 85	8,624 23	
Shoeing-nails	90 55	2,033 54	
Traveling and portable forges		215 00	
Blacksmiths' tools	350 08	3,575 23	
Gas in public offices	432 83	4,466 11	
Hire of watchmen, messengers, and laborers	7,251 70	65,054 30	
Printing and advertising	6,616 76	11,859 69	
All expenses not otherwise enumerated	17,275 52	69,874 90	
Total	61,989 94	642,036 90	704,026 84
Horses for cavalry and artillery	21,718 25	84,330 78	106,049 03

Appropriation.	1877-'78.	1878-'79.	Total.
BARRACKS AND QUARTERS.			
Hire of quarters for troops	\$582 00	\$8, 137 87	
Hire of storehouses	2, 983 93	35, 342 47	
Hire of offices	1, 382 59	46, 088 86	
Rent of ground for posts, camps, &c.	15 00	12, 341 51	
Construction of temporary buildings, stables, &c.	51, 077 89	85, 465 26	
Repairing public buildings at established posts	19, 693 60	148, 090 80	
Commutation of quarters for enlisted men	4, 039 20	124, 933 48	
Hire of civilian mechanics in connection with the construction and repair of barracks and quarters	4, 228 72	47, 064 99	
Digging wells	20 00	355 00	
All expenses not otherwise enumerated	9, 024 86	48, 062 10	
Total	93, 047 79	555, 884 34	\$648, 932 13
ARMY TRANSPORTATION.			
Railroads, passengers	11, 459 36	138, 344 44.	
Railroads, freight	37, 153 60	162, 984 93	
Water transportation, passengers	1, 431 56	39, 419 58	
Water transportation, freight	5, 962 46	142, 900 46	
Wagon transportation, freight	107, 222 25	483, 185 80	
Stage transportation	1, 763 60	65, 902 20	
Purchase and hire of transportation animals and harness	48, 118 78	124, 952 27	
Repair of ships, boats, &c	165 40	16, 523 10	
Purchase and repair of Army wagons, spring-wagons, ambulances, harness, &c	20, 603 63	188, 016 06	
Supplying posts with water	3, 090 06	53, 343 04	
Building and repairing wharfs and wharfage	1, 834 30	19, 203 10	
Tolls on turnpikes, ferries, and bridges	982 83	9, 063 82	
Drayage and cartage	1, 687 72	21, 716 48	
Hire of train-masters	2, 341 99	29, 060 75	
Hire of teamsters	11, 029 64	172, 582 73	
Hire of blacksmiths	1, 625 90	73, 600 84	
Hire of engineers	133 67	17, 918 28	
Hire of wheelwrights	477 68	41, 968 53	
Hire of saddlers	308 66	12, 858 10	
Hire of herders	817 74	19, 611 62	
Hire of packers	17, 948 88	90, 126 60	
Hire of painters		1, 100 00	
Hire of plasterers		58 50	
Subsistence for laborers, &c		73 00	
Transportation of funds		3, 124 50	
Expenses of sailing public transports	7, 478 40	55, 512 77	
Traveling expenses of clerks and agents acting under orders and not changing stations	2, 130 53	30, 152 86	
Clearing roads and removing obstructions from roads, harbors, and rivers	1, 078 20	2, 041 80	
All expenses not otherwise enumerated	15, 863 55	291, 439 66	
Total	302, 710 39	2, 306, 785 82	2, 609, 496 21
CLOTHING, CAMP AND GARRISON EQUIPAGE.			
Purchase of clothing and clothing materials	344, 718 70	490, 839 20	
Purchase of camp and garrison equipage	26, 953 97	74, 472 48	
Purchase of brooms	2, 396 64	1, 956 39	
Purchase of scrubbing-brushes	959 16	903 00	
Hire of employés connected with the purchase, manufacture, and preservation of clothing	5, 649 76	160, 421 36	
All expenses not otherwise enumerated	234 50	13, 105 39	
Total	380, 912 73	741, 697 82	1, 122, 610 55
NATIONAL CEMETERIES.			
Construction and repair of lodges and outbuildings	12, 368 06	8, 892 41	
Construction and repair of walls and gates	24, 239 65	6, 569 67	
Purchase of land	627 25	3 00	
Keeping grounds in order	2, 868 00	31, 408 38	
Trees, shrubs, &c	56 96	1, 320 35	
All expenses not otherwise enumerated	4, 483 72	14, 982 25	
Total	44, 643 64	63, 176 06	107, 819 70
Pay of superintendents of national cemeteries	535 00	34, 585 82	35, 120 82

Appropriation.	1877-'78.	1878-'79.	Total.
HOSPITALS.			
Construction of hospitals.....	\$336 55	\$28,789 52	
Repair of hospitals.....	570 35	21,706 35	
Total.....	906 90	50,495 87	\$51,402 77
Of the above amounts there were expended—			7,599,023 07
On account of Signal Service.....	9,387 45	132,697 33	
On account of surveying expeditions.....	162 36	7,007 52	

Very respectfully, your obedient servant,

J. D. BINGHAM,

Deputy Quartermaster-General, Bvt. Brig. Gen., U. S. A.

The QUARTERMASTER-GENERAL OF THE ARMY.

No. 4.—*Report of Deputy Quartermaster-General J. D. Bingham as to the operations of clothing branch, &c.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

GENERAL: I have the honor to submit the annual report of the clothing branch of this office for the fiscal year ending June 30, 1879.

As indicated in my last annual report, arrangements had been made for the manufacture of clothing and equipage at the San Francisco depot to the extent of the materials accepted from contractors at that place.

As soon as the appropriation for the fiscal year became available the manufacture was commenced, and appears to progress satisfactorily. The prices paid for the various articles manufactured are the same as those paid for like articles at the Eastern depots.

With the adoption of the present campaign hat, the folded hat of the pattern adopted in 1872 became obsolete. The latter not being strong enough for Army use, failed in service, and those on hand at the various posts were ordered to the depot at Philadelphia, where it was found that by cutting off part of the brim and reblocking the crown, at an estimated cost of 15 cents each, these hats could be made to conform to the new pattern campaign hat. Owing to the want of strength and durability, however, unfitting them for soldiers' use, the Secretary of War, on December 7 last, authorized their sale, thus altered, to officers at the price of the regulation campaign hat. There are now about 20,000 on hand.

On the 22d of January last the Rubberoid Company of Philadelphia, Pa., forwarded to this office samples of some of their fabrics, with a view to their use in the Army. The officer in charge of the depot at Philadelphia was directed to procure 50 blankets and two paulins made of this material, and to send them for trial to Fort Brown, Tex., and Fort Pembina, Dak., posts where they will be subjected to the greatest heat in summer and cold in winter. Some of the blankets are to be retained at the Philadelphia depot and exposed to ascertain whether the mate-

rials are liable to spontaneous combustion. No reports have yet been received upon the subject.

Accompanying this report, marked I, is a copy of a letter from the Chief of the Bureau of Provisions and Clothing of the Navy Department, expressing the thanks of the department for consideration shown by Capt. John F. Rodgers, military storekeeper at the Schuylkill Arsenal, Philadelphia, relative to purchase and inspection of materials for the manufacture of Navy clothing, showing that the Navy Department has adopted for the Navy the manner of manufacturing clothing as carried on at the Philadelphia depot.

Attention having been called to an advantage which it was claimed would result to the department in purchasing $\frac{3}{4}$ instead of $\frac{5}{8}$ materials for the manufacture of clothing, Capt. John F. Rodgers, military storekeeper, the inspecting officer of the Philadelphia depot, was directed to investigate and report upon this subject. From the annexed copy of correspondence marked K, it will be seen that no material benefit would be derived therefrom; on the contrary, manufacturers of clothing prefer $\frac{5}{8}$ goods as more economical and desirable, there being relatively less waste and greater uniformity of color.

Owing to the failure of the Mission and Pacific Woolen Mills of San Francisco to deliver kersey of standard color, and the fact that the standard piece was too small for convenient use as such, a yard each of light and heavy kersey, as near as possible to the standard in quality and shade of color, has been sealed and sent to each purchasing depot for use as standard. Instructions have also been given to select and keep on hand at the Schuylkill Arsenal a bale each of light and heavy quality kersey, equal to standard in every respect, to be used in supplying contractors with suitable samples as guides in manufacturing. Hereafter when contracts are made, a piece of this kersey will be sent to this office where it will be sealed and furnished to contractors. Kersseys conforming to this sample in all respects will be accepted under the contract for which it is furnished.

This action, it is believed, will prevent misunderstandings in the future. To avoid possible errors, the old standards were ordered to be sent to this office, where they are now held for future reference.

Standards for shirting flannel, heavy quality, and trumpets have been adopted, sealed, and distributed during the last fiscal year.

Specifications for the following articles have been adopted, printed, and distributed to the officers of the quartermaster's department during the fiscal year, viz: Felt boots, Sibley tents, wall tents, wall tent-flies, common tents, tent slips, and trumpets. Amendments were made to the specifications for boots and common tent-poles.

Standards of clothing conforming to those at the Philadelphia depot were prepared and furnished to the Saint Louis clothing depot on the 20th of May last.

Army clothing, to the value of \$657.72, was issued to Indians during the year, accounts for which were presented to the Interior Department, and the amount has been placed on the books of the Treasury to the credit of the appropriation for clothing and equipage.

Upon overhauling the stock of clothing and equipage on hand at several depots of the department, it was found that a number of articles of clothing, especially great-coats, were unfit for issue to the Army. After condemnation, they were transferred to the National Home for Disabled Volunteers under the act of Congress approved January 23, 1873. The value of the clothing thus transferred was \$55,766.27. A

balance of \$21,448.88 still remains due to the home on requisitions or clothing made upon this office.

The military prison at Fort Leavenworth, Kans., has manufactured for the department, during the year, 40,000 tent-pins, 7,777 barrack chairs, and 51,756 pairs of brass-screwed shoes. The materials for the shoes cost \$1.69½ per pair, the prisoner's labor .07½ cents per pair, making total cost \$1.77½ per pair.

The cost of tent-pins was \$1.67½ per 100; that of barrack chairs, 95½ cents each.

On the 21st of January, 1879, this office was furnished with a copy of the following decision of the Secretary of War: "No further payment to be made by the Quartermaster's Department to the prison fund on account of prison earnings until Congress has taken action on the subject." Since that date no funds have been remitted to pay for prison earnings.

From accounts and a report furnished this office by Capt. A. P. Blunt, assistant quartermaster, U. S. A., the governor of the military prison, it appears that the value of the unpaid labor performed by the prisoners on account of the Quartermaster's Department is as follows:

Value of labor performed by prisoners on roads, storehouses, shoe-factory, carpenter-shops, &c., during the fiscal year 1877-'78, as per accounts forwarded, \$3,418. Value of same during the fiscal year 1878-'79, as per report of Capt. A. P. Blunt, of August 7, 1879, \$8,009.70. Total, \$11,427.70.

The Quartermaster's Department should be credited with the estimated value of clothing and equipage issued to the prison during the fiscal year 1877-'78 (see my last annual report), \$9,422.21; also with the estimated value of clothing and equipage issued to the prison during the fiscal year ending June 30, 1879, \$7,059.72. Total, \$16,481.93; which leaves a balance of \$5,054.23 due the Quartermaster's Department by the prison on account of clothing and equipage.

From July 1, 1878, to January 31, 1879, the following-named sums were remitted to the acting assistant quartermaster of the prison from the appropriation of the Quartermaster's Department, viz:

Incidental expenses:	
For hire of clerks and watchmen.....	\$1,720 00
Army transportation:	
For hire of teamsters	900 00
Clothing, camp and general equipage:	
For hire of foreman in shoe factory.....	1,440 00
Employment of prisoners making shoes at 30 cents per day.....	2,340 00
Purchase of barrack chairs made at the prison.....	7,500 00
Purchase of tent-pins made at the prison.....	900 00
Royalty on heeling machine.....	41 85
	12,221 85
Total	14,841 85

Under the decision of the Secretary of War, dated October 30, 1878, all the boots required for the Army will hereafter be manufactured at the military prison. The necessary machinery therefor has been purchased and put up at a cost of \$800.

Nine hundred and eighty-nine iron tent-pins were purchased during the last fiscal year for use where the nature of the ground did not permit the use of wooden pins.

Upon the suggestion of Lieut. George O. Eaton, Fifth Cavalry, acting assistant quartermaster at Fort D. A. Russell, Wyo., that mess-pans be

made of two sizes in order that they may be used in baking bread, instead of using the Dutch ovens which are heavy and cumbersome, orders for cutting down some of the mess-pans at the Fort Leavenworth and San Francisco depots were given, the Secretary of War having, on the 19th November last, approved the recommendation of the Quartermaster-General to that effect.

The stock of great-coats, of the old pattern, has been greatly reduced during the last fiscal year by condemnation and transfer to the National Home for disabled volunteers.

The manufacture of some of the larger sizes has been commenced. These new pattern great-coats are so superior in material and workmanship to those of the old pattern, that much opposition has been made by officers and men to receiving the coats of the old pattern; but under existing laws they must be issued. The capes of the new great-coats will hereafter be lined with flannel of the color of the facings of the uniform.

The dark blue flannel shirts manufactured from inferior blouse-flannel and which were issued to the Army in 1875, having given such general satisfaction, instructions were sent on the 23d of October last, to each officer of the Quartermaster's Department and acting assistant quartermaster at military posts to obtain the opinions of officers as to the wishes of the Army upon the subject of the adoption of this kind of shirt.

From the reports received it appears that the Army is universally in favor of the dark blue flannel shirts. All the papers on this subject were submitted to the board of officers convened in this city by special orders of the War Department of November 11, 1878 (Army equipment board), which has recommended the supply of dark blue shirts in lieu of the gray flannel shirts now being issued.

The board referred to was furnished by this department with samples of American and foreign army uniforms, and such information as was required from time to time.

A camp bed purchased of its inventor, Mr. Theo. Carstein, was also submitted to the board.

Under instructions of the Honorable the Secretary of War, one of the tents, of which Lieut. G. C. Doane, Second Cavalry, is the inventor and patentee, was manufactured under the personal supervision of Lieutenant Doane at the Philadelphia depot of the Quartermaster's Department, and examined and reported upon by the board; its cost was \$70.50; but if purchased in large numbers its cost will be somewhat reduced. It has a capacity for about 18 mounted men.

The Sibley tent, the patent of which has expired and which the department is now supplying to the troops in winter camps on the northern frontier, has a capacity for 17 mounted men. Its cost with wall is \$27.99; without wall, \$25.37.

A set of company books designed by Lieut. H. C. Cushing, Fourth Artillery, was also laid before the board referred to; also a shelter tent, devised by the same officer.

On the 3d of May last the proceedings of the board were referred to this office for the views of the Quartermaster-General. The recommendations were of such a nature that it required much time and care to make the desired report. Before completing it, the proceedings were returned on the 12th of July last, under instructions from the General of the Army, with statement that if all the recommendations as to clothing and equipage were carried out, an additional annual expense of about \$525,670.64 would be incurred.

During the last fiscal year the Army has been supplied with barrack chairs which were either manufactured at the military prison or purchased under contract, after advertisement, on the Pacific coast.

New lasts have been provided for manufacturing boots and shoes, which will give straight instead of curved soles, thereby allowing more room for the toes, and making a more comfortable marching shoe.

On the 15th of October last the Secretary of War, on the recommendation of the Surgeon-General and of the Quartermaster-General, authorized the purchase, with a view to trial in active service, of 204 knit suspensory drawers, from Messrs. Walton Bros. of New York. They were distributed as follows: 100 pairs to the Department of the Platte, 30 pairs to Willets Point, New York Harbor; and 74 pairs to Fort Hamilton, New York Harbor, in order that they may be tried by troops of all arms of the service.

From reports received, it appears that these drawers, perhaps owing to the material of which they are made, have not given satisfaction. At the request of Walton Bros., a few pairs have been made of Canton flannel and issued for trial, the result of which is not yet known.

Under various joint resolutions of Congress, tents and other articles of camp and garrison equipage were issued during the year for the soldiers' reunion at Des Moines, Iowa; for the soldiers' reunion at Centreville, Iowa; to the governor of the State of North Carolina, for use of the militia while in camp for drill; to the governor of the State of Texas, for use of the volunteers of the State at their summer encampment, and to the governor of the State of West Virginia, for use of the militia of that State. The latter declined to execute the requisite bond for the return of the property in good condition. The Judge Advocate-General decided that the act of Congress authorizing the loan required that a bond of the nature referred to should be given. The property was returned to the depots from whence obtained, without being used; the governor declining to receive it upon the conditions named.

A board of survey, called by paragraph II, General Orders No. 105, Headquarters Department of the South, 1878, to examine and report upon discrepancies between amounts and conditions of the camp and garrison equipage loaned under the various acts of Congress, found that some of the tents, poles, and pins were not returned, while others were returned in a damaged condition, and recommended that the officer accountable for the property be relieved from all responsibility in the matter; that he be authorized to drop the deficient articles from his returns and that the damaged articles be submitted to the action of an inspector.

One hospital and 1,795 common tents, valued at \$16,084.43, were issued by this department under authority of the honorable Secretary of War during the yellow-fever epidemic last year.

In February last the Chief Quartermaster Military Division of the Missouri forwarded to this officer samples of boots made with H. C. Goodrich's indestructible soles, with a view to their trial in the Army. No action was taken, as the matter of improvement in boots and shoes was then before the Board on Army Equipments, and for the further reason that reports on the merits of the standard boots and shoes were then being called for from officers of the Army. When these are all in, final action will be taken.

In April last Mrs. R. S. Weaver called the attention of the department to a button-fastening device, invented and patented by her. Upon full investigation, and after obtaining the views of merchant tailors, and the officers on duty at the Philadelphia depot, the Quartermaster-

General reported against its introduction in the Army, it not being of any material value. The Secretary of War approved this recommendation.

The chief quartermaster of the Military Division of the Missouri, on the 14th of May last, recommended the issue of overalls, free of charge, to enlisted men when employed on daily duty. It was considered by the War Department that such issue would create dissatisfaction among the troops, who now receive these overalls as part of their clothing allowance, and that the remedy proposed, giving them a pair of overalls worth only 52 cents, would not be satisfactory to the men who were placed on extra duty, while there were no funds available to pay for extra duty.

On the 9th of June last the depot quartermaster at San Francisco forwarded a communication from Capt. G. A. Hull, military storekeeper, accompanied by a sample, recommending a certain improvement in the present pattern of drawers. After reference to the officers at the Philadelphia depot, it was decided to manufacture 100 pairs for trial. They are now being manufactured, and will be issued to troops at forts Columbus, Adams, and Hamilton.

Frequent inspections have been made during the year by Capt. Jno. F. Rodgers of the factories engaged in manufacturing kersey, flannel, stockings, &c., under contract with this department. Such inspections are useful in making timely corrections of errors in manufacture, and in securing the use by contractors of the proper materials required for making fabrics of the required standard.

For further and more specific information as to the operations of the clothing branch of this office, your attention is respectfully invited to the accompanying statements, viz:

A.—Statement showing articles of clothing and equipage on hand at the general depots of the Quartermaster's Department June 30, 1878; the quantity purchased, manufactured, gained, sold, expended, and issued to the Army, and the quantity remaining in the depot June 30, 1879.

B.—Statement showing remittances on account of clothing, camp and garrison equipage during the fiscal year ending June 30, 1879.

C.—Statement of amounts received and expended by the Quartermaster's Department on account of clothing, camp and garrison equipage during the fiscal year ending June 30, 1879.

D.—Specifications for articles of clothing, camp and garrison equipage adopted and amended during the fiscal year ending June 30, 1879.

E.—Statement showing quantity of clothing issued to the National Home for Disabled Volunteers under the act of January 23, 1873, during the fiscal year ending June 30, 1879.

F.—Statement showing quantity of clothing, camp and garrison equipage issued by the Quartermaster's Department to certain Indians during the fiscal year ending June 30, 1879; also the money value of the articles transferred.

G.—Statement showing articles of clothing, camp and garrison equipage turned over to the military prison at Fort Leavenworth, Kans., for issue to prisoners, during the fiscal year ending June 30, 1879; also the money value of same.

H.—Statement showing number of tents issued by the Quartermaster's Department for the relief of yellow-fever sufferers during the fiscal year ending June 30, 1879; also the money value of same.

I.—Copy of correspondence regarding the manufacture of clothing by the Navy Department, according to the system prevailing at the Philadelphia depot of the Quartermaster's Department.

K.—Copy of correspondence regarding the manufacture of materials for clothing of $\frac{3}{4}$ instead of $\frac{2}{4}$ of a yard wide.

L.—Extract from annual report of Capt. J. F. Rodgers, military store-keeper, U. S. A., the officer in charge of the manufacture and inspection of clothing, camp and garrison equipage, at the Philadelphia depot of the Quartermaster's Department, for the fiscal year ending June 30, 1879.

M.—Statement of returns of clothing, camp and garrison equipage received and examined, and of letters received and written, during the fiscal year ending June 30, 1879.

N.—Statement of the clerical force employed in the clothing and equipage branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1879.

Very respectfully, your obedient servant,

J. D. BINGHAM,

Deputy Quartermaster-General, U. S. A.

Brig. Gen. M. C. MEIGS,

Quartermaster-General, U. S. A., Washington, D. C.

A.—Statement showing articles of clothing, camp and garrison equipage on hand June 30, 1878; the quantities purchased, manufactured, gained, sold, and expended and issued to the Army, and the quantity remaining in depot, June 30, 1879.

Articles.	On hand June 30, 1878.	Purchased.	Manufactured.	Taken up, turned into depot, &c.	Total.	Sold, expended, &c.	Issued to the Army.	On hand June 30, 1879.
Helmet, untrimmed number	4,230	2,502	.....	2	6,734	10	521	6,203
Helmet hair plumes do.	4,347	3,000	.....	3	7,350	12	182	7,156
Helmet cords and bands do.	5,279	2,850	.....	13	8,142	2	247	7,893
Helmet top-pieces and plame-sockets, number	2,513	3,500	.....	3	6,016	1	190	5,825
Helmet eagles number	4,433	1,675	.....	1	6,109	.....	248	5,861
Helmet scrolls and rings pairs	3,612	4,925	.....	17	8,554	.....	2,940	5,614
Helmet side-buttons number	2,395	4,675	.....	1	7,071	1	360	6,710
Cork helmets do.	.....	251	.....	.....	251	.....	250	1
Dress-caps do.	5,769	3,795	.....	9	9,573	13	2,018	7,542
Dress-cap pompons do.	8,447	2,075	.....	51	10,573	95	2,547	7,931
Campaign-hats do.	9,190	15,000	.....	7	24,197	47	18,788	5,417
Campaign-hat-cords and tassels, number	414,426	.....	.....	23,836	438,262	196	741	437,825
Campaign-hats for officers, number	2,235	.....	.....	.....	2,235	.....	.....	2,235
Forage-caps do.	17,854	41,237	.....	521	59,612	801	28,052	30,759
Forage-cap covers do.	19,378	.....	.....	99	19,477	107	15,724	3,646
Muskat or fur caps do.	984	2,667	.....	.....	3,651	1	3,056	594
Seal-skin caps do.	7	.....	.....	.....	7	.....	.....	3
Cap-eagles do.	18,070	.....	.....	97	18,167	30	2,392	15,755
Cap-crescents do.	307	100	.....	.....	407	.....	42	365
Cap-wreaths do.	2,202	.....	.....	5	2,207	.....	28	2,179
Letters U and S do.	1,963	.....	.....	43	2,006	.....	19	1,987
Castles do.	1,738	.....	.....	.....	1,738	.....	187	1,551
Shells and flames do.	1,719	.....	.....	1	1,720	5	189	1,578
Crossed sabers do.	12,006	20,000	.....	26	32,032	1	5,152	26,879
Crossed cannon do.	15,655	.....	.....	.....	15,655	.....	5,298	10,357
Crossed rifles do.	25,747	20,000	.....	30	45,777	.....	17,162	28,615
Bugles do.	46,600	.....	.....	569	47,169	679	.....	46,490
Letters, cap do.	107,563	30,000	.....	50	137,613	4	6,997	130,652
Numbers do.	147,017	50,000	.....	11	197,028	.....	45,938	151,100
Coats, great do.	115,573	.....	2,618	1,366	119,557	24,210	18,081	82,316
Buffalo overcoats do.	.....	246	.....	.....	246	.....	246	.....
Uniform coats, all kinds do.	26,519	.....	209	.....	26,728	174	873	25,881
Coat crescents do.	205	50	.....	.....	255	.....	48	207
Coat castles do.	1,067	.....	.....	.....	1,067	.....	3	1,064
Coat shells and flames pairs	1,487	.....	.....	4	1,491	.....	231	1,260
Leggins do.	.....	1	.....	.....	1	.....	.....	.....
Chevrons, all kinds do.	15,142	.....	26,426	45	41,613	51	16,163	25,399
Devices number.	789	.....	.....	.....	789	.....	102	687
Blouses, lined do.	15,437	.....	36,034	51	51,522	39	33,588	17,895

Statement showing articles of clothing, camp and garrison equipage on hand, &c.—Continued.

Articles.	On hand June 30, 1878.	Purchased.	Manufactured.	Taken up, turned into depot, &c.	Total.	Sold, expended, &c.	Issued to the Army.	On hand June 30, 1879.
Blouses, unlined	number 22, 951		3, 527	44	26, 522	120	5, 368	21, 034
Stable-frocks	do. 6, 490		7, 713	19	14, 222	48	3, 720	10, 454
Overalls	do. 11, 411		8, 478	40	19, 929	4	8, 583	11, 342
Trousers, mounted, made	pairs. 7, 896		17, 728	70	25, 694	68	9, 154	*16, 472
Trousers, mounted, unmade	do. 2, 568		15, 014	235	17, 817	50	8, 375	19, 392
Trousers, foot, made	do. 15, 244		20, 548	2 245	38, 037	138	23, 344	†14, 555
Trousers, foot, unmade	do. 961		19, 964	10	20, 935	13	18, 337	§2, 585
Trousers, stripes	do. 3, 417		12, 798	4	16, 219	26	10, 600	5, 593
Shirts, heavy quality	number 73, 588		30, 188		103, 776	85	28, 497	75, 254
Shirts, light quality	do.		60, 802	3	60, 805		21, 269	39, 536
Drawers, suspensory	pairs.	204			204		203	1
Drawers, Canton flannel	do. 84, 790		80, 836	176	165, 802	2, 734	58, 292	104, 776
Stockings, woolen	do. 43, 139	174, 769		77	217, 985	159	169, 120	48, 706
Berlin gloves	do. 81, 849	267, 433		5	349, 287	65	56, 785	292, 437
Woolen mittens	do. 585	11, 073		123	11, 781	123	5, 393	6, 265
Sealskin gauntlets	do. 9				9		8	1
Muskat or fur gauntlets	do. 291	2, 875			3, 166	1	3, 132	33
Beaver gloves	do.	26			26		26	
Boots	do. 12, 753	31, 493		88	44, 334	76	27, 606	16, 652
Boots, felt	do. 11	452			463	2	458	3
Shoes	do. 45, 141	1	51, 756	228	97, 126	80	29, 092	67, 954
Arctic overshoes	do. 7, 152	4, 311		2	11, 465	11	2, 759	8, 695
Buffalo overshoes	do. 71			10	81	53	17	11
Blankets, woolen	number 6, 444	28, 137		349	34, 930	194	23, 415	11, 321
Blankets, rubber	do. 177, 960			101	178, 061	13	2, 001	176, 047
Ponchos, rubber	do. 140, 871			97	140, 968	213	123	140, 632
Iron bunks	do. 1, 518				1, 518	4	274	1, 240
Slats for iron bunks	sets 1, 651	1, 633	398	23	3, 705	7	3, 320	378
Bed-sacks, double	number 4, 012			208	4, 220		104	4, 116
Bed-sacks, single	do. 23, 149		8, 504	1, 522	33, 175	424	6, 504	26, 247
Pillow-sacks	do. 24, 566		6, 500	5	31, 071	4	5, 696	25, 371
Mosquito-bars	do. 16, 235	6, 000		59	22, 294	182	5, 874	16, 238
Iron pots	do. 704			51	755		24	731
Camp kettles	do. 67, 638			30	67, 668	42	2, 975	64, 651
Mess pans	do. 375, 648			257	375, 905	76	2, 238	373, 591
Axes	do. 22, 439			47	22, 486	338	4, 644	17, 504
Ax-helves	do. 5, 158	11, 497		568	17, 223	646	10, 190	6, 387
Ax-slings	do. 27, 957			135	28, 092			28, 092
Hatchets	do. 78, 199			17	78, 216	30	986	77, 200
Hatchet-helves	do. 81, 548			51	81, 599	1, 739	849	79, 011
Hatchet-slings	do. 24, 921			102	25, 023			25, 023
Spades	do. 67, 091			98	67, 189	68	639	66, 482
Spade-slings	do. 936			8	944		92	852
Shovels	do. 27, 994	228		42	28, 264	128	2, 898	25, 238
Camp bed	do.	1			1			1
Pickaxes	do. 60, 438	2			60, 440	74	280	60, 086
Pickax helves	do. 55, 971			6	55, 977	47	1, 802	54, 128
Pickax slings	do. 634				634		33	601
Drums	do. 2, 773			114	2, 887	2	145	2, 740
Drum-heads, batter	do. 2, 249			203	2, 452	200	587	1, 665
Drum-heads, snare	sets 4, 636			15	4, 651		205	4, 446
Drum-slings	number 6, 361			15	6, 376		336	6, 040
Drum-sticks	pairs. 14, 018			30	14, 048	4	47	13, 997
Drum-stick carriages	number. 11, 670			227	11, 897	3	12	11, 882
Drum-cords	do. 1, 598			17	1, 615		357	1, 258
Drum-snare	sets 3, 871			111	3, 982	66	36	3, 880
Drum-cases	number 810			12	822	7	252	563
Trumpets	do. 227	400		15	642	3	471	168
Trumpet crooks	do. 277			764	1, 041		6	1, 035
Cords and tassels for bugles and trumpets	number 13, 269			80	13, 349	10	1, 480	11, 859
Bugles	do. 1, 501				1, 501	25	1, 400	76
Fifes	do. 10, 114			2, 464	12, 578	12		12, 566
Books, company clothing account, number	0, 596			115	9, 711	1	62	9, 648
Books, company order	number 8, 628			17	8, 645		137	8, 508
Books, company descriptive, number	10, 197			32	10, 229	1	9	10, 219
Books, company morning report, number	10, 920			2	10, 922	5	93	10, 824
Books, regimental letter	number 1, 431				1, 431	1	45	1, 385
Books, regimental descriptive, number	2, 311			40	2, 351	1	9	2, 341

*15,103, heavy quality; 1,369, light quality. †8,739, heavy quality; 653, light quality. ‡11,412, heavy quality; 3,143, light quality. §2,235, heavy quality; 350, light quality.

Statement showing articles of clothing, camp and garrison equipage on hand, &c.—Continued.

Articles.	On hand June 30, 1878.	Purchased.	Manufactured.	Taken up, turned into depot, &c.	Total.	Sold, expended, &c.	Issued to the Army.	On hand June 30, 1879.
Books, regimental index.....number	2,281			2	2,283	1	37	2,245
Books, regimental order.....do	3,293			206	3,499	2	803	2,694
Books, post-order.....do	4,625			1	4,626	1	525	4,100
Books, morning report.....do	5,272			7	5,279	4,106	174	999
Books, post-letter.....do	4,865				4,865	2	31	4,832
Books, post-guard report.....do	54			16	70		31	39
Books, target-practice.....do	1,192			110	1,302		19	1,283
Tents, Sibley, with walls.....do		10			10		8	2
Tents, Sibley, without walls, number	5	100			105		103	2
Tents, Sibley, poles.....number	307				307		230	77
Tents, Sibley, chains.....do	5,635				5,635		2	5,633
Tents, Sibley, straps.....sets	5,347				5,347			5,347
Tents, Sibley, pole-sockets.....number	12				12			12
Tents, Sibley, rings.....do	10,530			4	10,534			10,534
Tents, Sibley, tripods.....do	3,687				3,687		202	3,485
Tents, Sibley, stoves.....do	782			1	783		76	707
Tents, Sibley, stove-pipe joints, number	583	700		49	1,332		610	722
Tents, hospital.....number	3,184			2	3,186		351	2,835
Tents, hospital-flies.....do	2,009			6	2,015	7	421	1,587
Tents, hospital-poles.....sets	3,642			3	3,645		274	3,371
Tents, wall.....number	619	2,000		12	2,631	301	672	1,658
Tents, wall-flies.....do	730	2,000		16	2,746	15	1,121	1,610
Tents, wall, poles.....sets	1,823	1,500		18	3,341	640	329	2,372
Tents, common.....number	1,186	6,359		10	7,555	5	1,919	5,631
Tents, common, poles.....sets	3,880	4,500		227	8,607		3,112	5,495
Tents, shelter.....number	440,009			26,495	466,504	23,113	617	442,774
Tents, shelter-poles.....sets	39,758			49	39,807	7	18	39,782
Tents, shelter, pins, iron.....number		989			989		989	
Tents, pins, assorted.....do	939,099	12,000	28,000	1,242	980,341	827,686		152,655
Flags, garrison.....do	309			9	318	8	12	298
Flags, post.....do	419			1	420	9	171	240
Flags, storm and recruiting, number	528	560		21	1,109	16	642	451
Flags, halliards for post and garrison, storm.....number	594			2	596	10	272	314
Flags, halliards for recruiting, number	2,379			2	2,381		31	2,350
Colors, national.....number	482				482		11	471
Colors, regimental.....do	542				542		13	529
Colors, cords and tassels.....do	130			25	155			155
Standards, cavalry.....do	116				616		38	578
Guidons.....do	751			5	756		71	685
Guidons, cases.....do	653			51	704	37	92	575
Color cases.....do	68			5	73	2	58	13
Color belts and slings.....do	2,177				2,177		33	2,144
Colors, camp.....do	4,352			5	4,357		72	4,285
Guidons, ambulance.....do	4,310			2	4,312		3	4,309
Flags, post and field hospital tencil-plates.....set	300	408		168	1,246		456	790
Corn-brooms.....number	4,192	5,460		70	778		255	523
Scrubbing-brushes.....do	4,309	11,348		20	9,652	284	3,579	5,839
Barrack chairs.....number	666	6,284	2,706		15,677	26	13,110	2,541
Cloth, dark blue, $\frac{1}{2}$ yards.....do	2,135			14,827	16,962	760		16,202
Cloth, dark blue, $\frac{3}{4}$ yards.....do	26,851			23	26,874	3,787		23,137
Kersey, sky blue, heavy, $\frac{3}{4}$ yards.....do	1,418	90,127		498	92,043	91,010		10,033
Kersey, sky blue, heavy, $\frac{1}{2}$ yards.....do	26			1	27	27		
Kersey, sky blue, light, $\frac{1}{2}$ yards.....do		43,869			43,869	42,201		1,668
Flannel, dark blue, $\frac{1}{2}$ yards.....do	4,207	107,589		19	111,815	77,378		34,437
Flannel, dark blue, $\frac{3}{4}$ yards.....do	20,490			77	20,567	20,557		10
Flannel, shirting.....do	7,293	392,561			399,844	340,078	65	*59,801
Paper, pattern.....do		10			10			
Paper, pattern.....pounds		84			84			
Paper, petroleum.....do	18,056	20,000		585	38,641	23,170		15,471
Cloth facing.....yards	2,050	5,765			7,815	1,107		6,708
Canton flannel.....do	2,884	348,886		2,448	354,218	186,793		167,425
Black silicia.....do	6,665	15,957			22,622	13,846		8,776
Unbleached muslin.....do	248,525	997		59,344	308,866	44,958		263,908
Cotton drilling.....do	45,609	124			45,733	349		45,384
Black alpaca.....do	76				76	3		73
Brown linen.....do	639				639			639
Buckram.....do	17				17	1		16
Canvas padding.....do	4,583	35,609			40,192	36,346		3,846
Cotton jeans.....do	25,567	5,244		14	30,826	3,995		26,831

* 11,031 light quality; 48,770 heavy quality.

Statement showing articles of clothing, camp and garrison equipage on hand, &c.—Continued.

Articles.	On hand June 30, 1878.	Purchased.	Manufactured.	Taken up, turned into depot, &c.	Total.	Sold, expended, &c.	Issued to the Army.	On hand June 30, 1879.
Italian cloth.....yards	382			922	1,304	85		1,219
Cotton wadding.....sheets	50,682				50,682	1,124		49,558
Cotton duck.....yards	1,872	343			2,215	1,896		319
Cotton, spoils.....number	2,199	117,712		15	119,926	117,117		2,809
Worsted braid.....yards	11,254				11,254	2,375		8,879
Worsted cord.....do	41,396	102,592			143,988	70,943		73,045
Gilt buckles.....number	92,832	57,385		20	150,217	118,378		31,839
Hooks.....do	7,988	12,000			19,988	8,528		11,460
Eyes.....do	11,044	12,000			23,044	8,528		14,516
Tape, pieces.....do	156,528	70,833			227,361	199,681		27,680
Tailor's crayons.....boxes	507				507	375		132
Sole-leather.....pounds		131,587½			131,587½	131,587½		
Wax upper leather.....feet		155,812			155,812	155,812		
Swedes nails.....pounds		6,522			6,522	6,522		
Lasting-tacks.....do		10			10	10		
Lasting-tacks.....gross		800			800	800		
Standard wire.....pounds		4,900			4,900	4,900		
Burnishing-ink.....gallons		62			62	62		
Shoe-dressing.....do		40			40	40		
Liquid wax.....do		15			15	15		
Hard-wax balls.....do		500			500	500		
Thumb-screws for bunks.....number		320			320		320	
Thumb-nuts for bunks.....do		595			595		595	
Studs for bunks.....do		1,140			1,140		1,140	
Rivets for bunks.....do		840			840		840	
Gingham.....yards		204			204	204		
Calico.....do		17			17	17		
Tickings.....do		655			655	655		
Felting.....do		1			1	1		
Cuttings.....pounds				114,033	114,033	114,033		

Respectfully submitted,

J. D. BINGHAM,

Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,

Washington, D. C., September 18, 1879.

B.—Statement showing remittances on account of clothing, camp and garrison equipage, during the fiscal year ending June 30, 1879.

Military Division of the Atlantic.....	\$3,708 60
Military Division of the Missouri.....	9,914 34
Military Division of the Pacific.....	67,436 71
Depot at Philadelphia, Pa.....	602,761 26
Depot at New York, N. Y.....	11 25
Depot at Jeffersonville, Ind.....	165,821 64
Military prison, Fort Leavenworth, Kans.....	12,745 85
Columbus Barracks, Columbus, Ohio.....	6 00
Jefferson Barracks, Mo.....	105 06
Wheeler's Exploring Expedition.....	100 00
Allegheny Arsenal, Pa.....	10 00
Total.....	862,620 71

Respectfully submitted,

J. D. BINGHAM,

Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,

Washington, D. C., September 18, 1879.

C.—Statement of amounts received and expended by the Quartermaster's Department on account of clothing, camp and garrison equipage, during the fiscal year ending June 30, 1879.

Appropriated by Congress.....	\$900,000 00	Expended for clothing and equipage.	\$862,620 71
Deposited in Treasury, credited to appropriation for clothing and equipage.....	90,297 38	Balance in Treasury June 30, 1879, and due on contracts not yet completed	127,676 67
Total	990,297 38	Total	990,297 38

Respectfully submitted.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

D.—Specifications for clothing, camp and garrison equipage, amended and adopted during fiscal year ending June 30, 1879.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR BOOTS.

To be worked square with the last on which they are made; the edges to be finished with shoulder-sticks, without heel-ball, and must measure at least half a size (outside) more than they are marked.

The upper leather to be the best oak-tanned from slaughter-hides. The soles to be the best oak-tanned from "straight" Texas hides, or from South American (commonly called "Spanish") dry hides. No split leather to be used.

The width of the soles across the ball of the foot to be graduated as follows, and to be in proportion throughout: No. 5, $3\frac{7}{8}$ inches; No. 6, $3\frac{3}{4}$ inches; No. 7, $3\frac{3}{4}$ inches; No. 8, 4 inches; No. 9, $4\frac{1}{2}$ inches; No. 10, $4\frac{1}{2}$ inches; No. 11, $4\frac{3}{8}$ inches; No. 12, $4\frac{1}{2}$ inches.

The insteps and toes to measure as follows: No. 5, $9\frac{1}{2}$, 9; No. 6, $9\frac{1}{2}$, $9\frac{1}{2}$; No. 7, $9\frac{1}{2}$, $9\frac{1}{2}$; No. 8, 10, $9\frac{1}{2}$; No. 9, $10\frac{1}{2}$, 10; No. 10, $10\frac{1}{2}$, $10\frac{1}{2}$; No. 11, $10\frac{1}{2}$, $10\frac{1}{2}$; No. 12, 11, $10\frac{1}{2}$.

The measurement for a No. 8 boot, standard, is as follows, viz: heel, $13\frac{1}{4}$ inches; instep, 10 inches; ball or toe, across, $9\frac{7}{8}$ inches; length of legs, $15\frac{1}{2}$ inches in front, 14 inches back; width of leg at top, $14\frac{1}{2}$ inches; width of strap, $1\frac{3}{8}$ inches; length of strap, 9 inches; height of counter, $2\frac{1}{2}$ inches (counter to be sewed over side seam); length and width of heel, 3 inches; width of sole or ball, 4 inches. They are to have not less than six (6) stitches to the inch in the side seam, and not less than nine (9) stitches to the inch on counters and straps.

To have double soles, fastened to the upper leather and inner soles firmly with brass screws (the thread of which shall be cleanly cut by the machine on $12\frac{1}{2}$ brass wire) well clinched inside, so as to render the inner sole perfectly smooth. The screws to be at no greater distance apart than will afford five (5) spaces to every two (2) inches.

Adopted February 25, 1878, in lieu of those adopted May 31, 1876, as modified August 24, 1876.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

Change in number of stitches on counters and straps from 10 to 9 made November 21, 1878.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

WAR DEPARTMENT,
QUARTERMASTER GENERAL'S OFFICE.

SPECIFICATIONS FOR FELT BOOTS.

To be made of heavy wool-felt, like sample, molded to shape of last. Heavy single sole and slip sole of hemlock leather fastened to upper with brass screws, same as Army standard boot. Upper leather (split) to cover front, sides, and back, rising well upon the instep in form of tongue, and at back to a height of from three to three and a half

(3 to $3\frac{1}{2}$) inches from the top of heel; stay piece of leather at back to rise from upper to a height of not less than (3) inches, and to be sufficiently wide to protect the felt from the more than usual friction and wear at that part of the leg. The leather upper to be secured to the felt boot by a double row of stitching as on sample, and the upper edge of side seams to be fastened with copper rivets and burs. Stay-strap and buckle to rise from front part of heel at sides, and fasten over the instep, to relieve the strain on the felt at that point.

DIMENSIONS.—For feet, to be as described for Army boots.

Height of leg to be fifteen (15) inches in front and fourteen (14) in back for size 8, and to vary proportionately for the other sizes.

Outside circumference of leg at fullest part to be not less than seventeen and a half ($17\frac{1}{2}$) inches for size 8, and to vary according to the sizes. Top of leg to be bound with leather, put on with a double row of stitching. Straps (to pull on by) to be similar to those on Army boots, except that where stitched to the leg they shall expand to an oval of about $2\frac{1}{2}$ by $2\frac{1}{4}$ inches, and be fastened to leg with a double row of stitching, so as to distribute as widely as possible the strain on the felt.

Adopted July 20, 1878.

M. C. MEIGS,

Quartermaster-General, Bvt. Major-General, U. S. A.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR SIBLEY TENTS.

Material.—Body of tent to be of standard twelve (12) ounce cotton duck, twenty-eight and a half ($28\frac{1}{2}$) inches wide. Sod-cloth of eight (8) ounce cotton duck. Foot-lines of six-thread ratline line.

Form and dimensions.—To be in the form of a frustum of a cone, eighteen (18) feet in diameter at base and (18) inches in diameter at the top. Height when pitched to top of roof, twelve (12) feet; to top of pole, thirteen (13) feet and (6) inches. Tabling at bottom of tent, two and one-half ($2\frac{1}{2}$) inches.

Top.—The opening at top to be formed with a galvanized iron ring eighteen (18) inches in diameter, over which the duck shall be firmly stitched, and re-enforced down the roof to a depth of twelve (12) inches. Six grommets (five-eighths ($\frac{5}{8}$) inch holes) to be made around top at equal distances, just below the ring, in which to hook the chains which support the tent on pole. Three (3) chains and hooks, six (6) in number, to be about twenty (20) inches long, and be connected with ring which passes over spindle of pole. All to be of malleable iron galvanized.

Door.—Doorway to be seven (7) feet and six (6) inches high (measured along the seam), nine (9) inches wide at top, and twenty-six (26) inches wide at bottom. The doors of two (2) pieces, each equal in area to the doorway, and joined at opposite sides of the same, so as to lap and form double thickness when closed.

Door-fastenings.—Door-fastenings to be the same as described for wall tents, except that they be arranged for the double door, and to tie either inside or outside.

Sod-cloth.—The sod-cloth to be fourteen (14) inches wide in the clear, and to extend around the inside of the tent from door to door.

Grommets.—Grommets at top, six (6) in number, to be made with tarred rope and cotton twine well waxed, and to be faced with stout leather. Those in the tabling at bottom, twenty-five (25) in number, to be made over malleable iron five-eighths ($\frac{5}{8}$) inch rings with cotton twine well waxed. All grommets to be worked in the seams.

Hood.—Conical hood, open at one side and having grommet in apex to admit spindle of pole, and to extend down the roof at least six (6) inches below the top of tent. Five (5) one-half ($\frac{1}{2}$) inch grommets at bottom for lines.

Foot-lines.—Foot-lines, twenty-five (25) in number, to be four and a half ($4\frac{1}{2}$) inches long in the clear, and to be in the form of a loop passing through a single grommet and stopped by the "Matthew Walker" knot instead of the wooden button.

Hood-lines.—Five (5) hood-lines of six-thread manilla (large), sixteen (16) feet long in the clear, whipped with white cotton twine well waxed at one inch from the ends.

Pole.—Pole to be of white pine or ash, straight grained, and to be nine (9) feet long in the clear and about two and three-quarter ($2\frac{3}{4}$) inches in diameter, except at the butt, where it shall be reduced sufficiently to fit tightly into socket on tripod. The top to be bound in galvanized iron band two and a half ($2\frac{1}{2}$) inches deep, and to be provided with a half ($\frac{1}{2}$) inch round iron spindle, driven three (3) inches into the pole and projecting the same distance, galvanized.

Tripod.—Tripod to consist of a cast-iron pole socket two (2) inches deep and about two and a quarter ($2\frac{1}{4}$) inches in diameter inside, having at equal distance on outside three (3) projecting double brackets to receive the legs. The legs, three (3) in num-

ber, to be made of two and a half ($2\frac{1}{2}$) by three-sixteenths ($\frac{3}{16}$) inch wrought-iron, bent into semi-tubular form toward the outside, the upper end to be welded together so as to enter the brackets. Lower ends to be slightly turned back so as not to present the sharp edge to the ground. Length of legs, four (4) feet and nine (9) inches. A staple to be firmly fixed in bottom of socket, from which depends a chain eighteen (18) inches long and S-hook, on which to hang cooking utensils. An extra S-hook in staple.

Pins.—Twenty-five (25) wooden pins of the small size and pattern used for hospital tents.

The manufacturer should cut his cloths as though designed for a height of eleven (11) feet and six (6) inches instead of twelve (12) feet. This is found necessary by the fact that the tent stretches after a few days' use, particularly in dry weather. If the duck be cut for full twelve (12) feet in height, it will necessitate propping up of the tripod to the extent of about six (6) inches.

Adopted February 15, 1879.

M. C. MEIGS,

Quartermaster-General, Brt. Major-General, U. S. A.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR WALL-TENTS.

Dimensions.—Height, eight (8) feet six (6) inches. Length of ridge, nine (9) feet. Width, nine (9) feet. Height of wall, three (3) feet nine (9) inches. Wall eaves, two (2) inches wide. Height of door, seven (7) feet. Width of door, fourteen (14) inches at bottom, seven (7) inches at top. From top of ridge to wall, six (6) feet six (6) inches.

Material.—To be made of cotton duck, twenty-eight and one-half ($28\frac{1}{2}$) inches wide, clear of all imperfections, and weighing twelve (12) ounces to the linear yard.

Work.—To be made in a workmanlike manner, with not less than two and a half ($2\frac{1}{2}$) stitches of equal length to the inch, made with double thread of fivefold cotton twine well waxed. The seams to be not less than one (1) inch in width and no slack taken in them.

Grommets.—Grommets made with malleable iron rings, galvanized, must be worked in all the holes, and be well made with four-thread fivefold cotton twine well waxed. Sizes of grommets for eaves, one-half ($\frac{1}{2}$) inch rings; for foot-stops, five-eighths ($\frac{5}{8}$) inch rings; and for ridge, three-fourths ($\frac{3}{4}$) inch rings—the latter to be worked so that the center will measure one and one-fourth ($1\frac{1}{4}$) inches from edge of roof, so as to be in correct position to receive spindle of upright poles.

Door and stay-pieces.—Door and stay-piece to be of the same material as the tent. Stay-pieces on ends and ridge of tent to be six and a half ($6\frac{1}{2}$) inches square. Those at corners of tent, at angle of roof and wall, to be eight (8) inches wide, let into the tabling at the eaves, and extending eight (8) inches up the roof and eight (8) inches down the wall.

Back-stay.—A band or strip four (4) inches wide, of the same material as the tent, to be stitched across the back of the tent on the inside, entering into and being stitched with the corner seams at the junction of the roof and wall.

Sod-cloth.—The sod-cloth to be of eight (8) ounce cotton duck, nine (9) inches wide in the clear from the tabling, and to extend from door to door around both sides and ends of the tent.

Tabling.—The tabling on the foot of the tent, when finished, to be two and a half ($2\frac{1}{2}$) inches in width.

Door-lines.—The door-lines to be of six-thread manilla line (large), three (3) feet long in the clear.

Door-fastening.—Door-fastening, as shown in sample tent, to consist of four (4) double door-strings of three-eighths ($\frac{3}{8}$) inch cotton rope, two (2) feet long on each side, passing through the door-seam, and secured by a stop-knot and a stay-stitch. Brass grommets to be in corresponding positions on edge of door-piece in which to tie the door-cords. A two (2) inch tabling to be made on the edge of door.

Foot-stops.—Foot-stops, seventeen (17) in number, to be loops four and a half ($4\frac{1}{2}$) inches long in the clear, of six-thread ratline, both ends passing through a single grommet worked in the tabling at seams, and to be held by what is known as the "Matthew Walker" knot. Ends to be whipped with cotton twine well waxed.

Eave-lines.—Eave-lines, ten (10) in number, to be of six-thread manilla line (large), and be eight (8) feet long in the clear. To be "spliced" in the eaves, and each line to be furnished with a wooden slip of Army standard.

The tabling at bottom, the sod-cloth, and the foot-stops to be so arranged that the sod-cloth falls outside and the foot-stops inside the tent.

All lines to be well whipped one (1) inch from the end with waxed twine, and properly knotted.

Adopted February 15, 1879.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

WAR DEPARTMENT,
 QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR WALL-TENT FLIES.

Dimensions.—Length, fifteen (15) feet and six (6) inches. Width, nine (9) feet when finished.

Material.—To be made of cotton duck, twenty-eight and one-half (28½) inches wide, clear of all imperfections, and weighing ten (10) ounces to the linear yard.

Tabling.—A two (2) inch tabling to be worked on ends, and a one and one-half (1½) inch tabling on sides.

Grommets.—Grommets made with malleable iron rings, galvanized, to be worked in all the holes with four (4) thread five (5) fold cotton twine well waxed. Size of grommets for eave-lines one-half (½) inch in diameter, and for upright spindle three-fourths (¾) of an inch in diameter; the latter to be placed so as to measure one and one-half (1½) inches from their centers to edge of fly, so as to be in proper position to receive spindle.

Stay-pieces.—Stay-piece on corners and ridge to be of same material as fly, and to be six and one-half (6½) inches square when finished.

Work.—The fly is to be made in a workmanlike manner in every respect, with not less than two and a half (2½) stitches of equal length to the inch, made with double thread of five (5) fold cotton twine well waxed.

Seams.—The seams not less than one (1) inch in width and no slack taken in them.

Eave-lines.—Eave-lines, (10) in number, to be of six-thread manilla line (large), and be seven (7) feet long in the clear. To be "spliced" in the end tablings, and each line furnished with a wooden tent-slip of Army standard.

All lines to be well whipped one (1) inch from the end with waxed cotton twine and properly knotted.

Adopted February 15, 1879.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

WAR DEPARTMENT,
 QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR COMMON TENTS.

Dimensions when finished.

Height when pitched	6 feet 10 inches.
Length of ridge when pitched	6 feet 10 inches.
Width when pitched	8 feet 4 inches.
Height of door when pitched	5 feet 6 inches.
Width of door when pitched, at bottom	1 foot.
Width of door when pitched, at top	9 inches.
From top of ridge to lower edge of roof, when pitched	8 feet ½ inch.

Material and workmanship.—To be made of standard cotton duck, twenty-eight and one-half (28½) inches in width, clear of all imperfections, and weighing ten (10) ounces to the linear yard, and in a workmanlike manner, with not less than two and one-half (2½) stitches of equal length to the inch, made with a double thread of five-fold cotton twine well waxed. The seams to be not less than one (1) inch in width and no slack taken in them. End of tent to be cut with a sweep of four (4) inches from corner to center.

Grommets.—Grommets, fifteen (15) in tabling, to be made with five-eighths (⅝) inch galvanized malleable iron rings, and well worked in the tabling at the seams with four-thread fivefold cotton twine well waxed; and one grommet in door, to be made in same manner, with one-half (½) inch ring.

Door and stay-pieces.—The door and stay-pieces to be of the same material as tent. The stay-pieces on ridge of tent to be nine (9) inches square; those on the end of tent nine (9) inches in length and of diamond shape, so as to join the stay-pieces on the ridge as in standard tent.

Sod-cloth.—The sod-cloth to be of eight (8) ounce cotton duck, nine (9) inches in width in the clear from the tabling, and to extend around the tent.

Tabling.—Tabling on foot of tent to be, when finished, two (2) inches in depth.

Door-lines.—The door-lines, two (2) in number, to be of six-thread manilla line (large), three (3) feet long in the clear, and be well whipped one (1) inch from the end with waxed cotton twine.

Foot-stops.—The foot-stops, fifteen (15) in number, to be loops four and one-half (4½) inches long in the clear, made of six-thread ratline, both ends passing through the grommet worked in the tabling at seams, and held by a "Matthew Walker" knot. Ends to be well whipped with cotton twine well waxed.

Door-fastening.—Door-fastening, as shown in sample tent, to consist of three (3) double door-strings of three-eighths (¾) inch cotton rope, two (2) feet long on each side, passing through the door-seam and secured by a stop-knot and stay-stitch. Brass grommets to be in corresponding positions on edge of door-piece in which to tie the door-cords. A two (2) inch tabling to be worked on the edge of door.

Adopted February 15, 1879.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., June 17, 1876.

SPECIFICATIONS FOR POLES FOR COMMON TENTS.

Ridges of white pine, and uprights of ash.

Ridge six (6) feet ten (10) inches long, two and a half (2½) inches wide, one and seven eighths (1¾) inch thick; bands of No. 24 sheet-iron on each end, two (2) inches wide, secured by two screws one (1) inch long; a half (½) inch hole one (1) inch from each end.

Uprights seven (7) feet four (4) inches long, two (2) inches thick; bands of No. 24 sheet-iron on upper end, one and three-quarters (1¾) inch wide, secured by two screws one (1) inch long; spindles of three-eighths (¾) of an inch iron to project out one and a half (1½) inch, and inserted in uprights two (2) inches. Bands and spindles to be galvanized.

Adopted May 31, 1876.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

Three poles constitute a set for a common tent (one ridge and two uprights).

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

Amended February 8, 1879.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR TENT SLIPS.

Material.—To be made of birch, cherry, or other close-grained suitable wood.

Dimensions.—For hospital tents: Length, six (6) inches; width at ends, about one and a half (1½) inches; thickness, one (1) inch. The ends to be neatly rounded off, and the sides to be flat, except at center, where the slip shall be turned to seven-eighths (¾) of an inch in diameter. The holes, one in each end, to be one-half (½) inch in diameter and cleanly bored.

For wall tents: Length, five (5) inches; size of holes, three-eighths (¾) of an inch in diameter. In all other respects to be the same as above.

For Sibley tent with wall: To be the same as for wall tents.

Adopted February 17, 1879.

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE.

SPECIFICATIONS FOR TRUMPETS.

For all foot troops—To be the same as standard sample brass trumpet "F," two (2) coil, and with two (2) mouth-pieces. When complete, with mouth-piece in, to weigh about twelve and a half (12½) ounces, and to measure about sixteen (16) inches in length, and about four and a half (4½) inches in width at center. Diameter of bell to be about four and a half (4½) inches.

For all mounted troops—To be the "F" trumpet, as described above, with the addition of a detachable "C" crook. The crook to weigh about three and a half (3½) ounces, and to occupy a space, as bent, of about ten (10) by three and a half (3½) inches. Length complete, about nineteen (19) inches.

Adopted February 15, 1879.

M. C. MEIGS,

Quartermaster-General, Bvt. Major-General, U. S. A.

E.—Statement showing quantity of clothing issued to the National Home for Disabled Volunteers, under the act of January 23, 1873, during the fiscal year ending June 30, 1879.

Requisition of January 21, 1878, 1,821 suits of clothing, at \$22.03 per suit.	\$40, 116 63
Requisition of January 13, 1879, 1,684 suits of clothing, at \$22.03 per suit.	37, 098 52
Total	77, 215 15
Issued on account:	
35 pairs sewed boots, at \$1.30½	\$45 62
9 pairs pegged boots, at \$1.24½	11 20
1 pair shoes, at 82½ cents	82½
491 pairs trousers, at \$1.92½	943 95
22,143 great-coats, at \$2.40	53, 143 20
8 uniform jackets, at 46½ cents	3 72
111 uniform coats, at 89 cents	98 79
93 campaign hats, at 8½ cents	8 14
971 sack coats and blouses (lined), at 80½ cents	778 74
1,474 blouses (unlined), at 49½ cents	732 09
	55, 766 27
Balance in favor of the Home	21, 448 88

Respectfully submitted.

J. D. BINGHAM,

Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,

Washington, D. C., September 18, 1879.

F.—Statement showing articles of clothing, camp and garrison equipage issued by the Quartermaster's Department to certain Indians, also the money value of the articles during the fiscal year ending June 30, 1879.

Date.	To whom issued.	Articles.	Price.	Amount.	
1878.					
Oct. 25	Apache Indian prisoners, Fort Wingate, N. Mex.	234 bedsacks	\$1 51	\$353 34	\$353 34
28	Chiefs Nez Percés Indians at Fort Leavenworth, Kans.	88 camp-kettles	44	38 73	
		102 mess-pans	20	20 40	
		45 axes	73	32 85	
		20 axe-helves	16	3 20	
1879.					95 18
Feb. 3	Bannock Indians at Fort Keogh, Mont ...	15 wool blankets	4 25	63 75	63 75
Mar. 6	Indian prisoners at Fort Boisé, Idaho	5 wool blankets	4 25	21 25	
		5 shirts	1 28	6 40	30 70
		5 pairs drawers	61	3 05	
Apr. 24	"White Swan," Nez Percés Indian, at Fort Benton, Mont.	1 forage cap	61	61	
		1 pair trousers	1 25	1 25	8 46
		2 shirts	57	1 14	
		2 pairs stockings	24	48	
		1 pair shoes	1 63	1 63	
		1 wool blanket	3 35	3 35	

F.—Statement showing articles of clothing, &c.—Continued.

Date.	To whom issued.	Articles.	Price.	Amount.
1879.				
June 11	Ponca Indian prisoners at Fort Omaha, Nebr.	9 great-coats	\$5 33	\$47 97
		9 sack coats, lined	2 13	19 17
		9 pairs trousers, foot ..	1 25	11 25
		9 flannel shirts	1 23	11 07
		9 pairs stockings	24	2 16
		9 pairs shoes	1 63	14 67
	Total			\$106 29
				657 72

Accounts for the foregoing articles have been presented to the Interior Department for payment.

Respectfully submitted.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

G.—Statement showing articles of clothing, camp and garrison equipage turned over to the Military Prison, Fort Leavenworth, Kans., for issue to prisoners, during the fiscal year ending June 30, 1879.

Uniform hats, old pattern	834
Great-coats	211
Uniform jackets, cavalry, privates, old pattern	1, 348
Uniform jacket, cavalry, musicians, old pattern	1
Sack coats, lined	216
Sack coats, unlined	107
Blouses, lined	155
Blouses, unlined	43
Trousers, mounted, made, prs	143
Trousers, mounted, unmade, prs	15
Trousers, foot, made, prs	1, 121
Trousers, foot, unmade, prs	419
Drawers, prs	1, 800
Stockings, woolen, prs	2, 800
Boots, prs	150
Blankets, woolen	18
Buffalo overshoes, prs	18
Shoes, sewed, prs	63
Shoes, pegged, prs	691
Bedsacks, single	100
Camp-kettles	6
Axes	50
Ax-helves	144
Shovels	50
Regimental letter-books	2
Regimental descriptive books	2
Regimental index books	6
Regimental order-books	2
Post morning-report books	2
Post-guard report-books	4
Corn-brooms	300
Scrubbing-brushes	75
Scrubbing-brushes (rubber)	2
Scrubbing-brush handles	5
Yards sky-blue kersey	95½
Estimated value of above articles	\$7, 059 72

Respectfully submitted.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

WAR DEPARTMENT, QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

H.—Statement showing number of tents issued by the Quartermaster's Department for the relief of yellow-fever sufferers during the fiscal year ending June 30, 1879, also money value of same.

Date of order.	City to which sent.	Tents.		Value.	
		Hospital.	Common.	Per tent.	Total.
1878.					
August 15 and 24	Memphis, Tenn		1,300	\$8 93	\$11,609 00
August 20	Vicksburgh, Miss		200	8 93	1,786 00
August 21	Grenada, Miss		200	8 93	1,786 00
September 7	Natchez, Miss		25	8 93	223 25
September 21	Donaldsonville, La	1		55 08	55 08
October 3	Chattanooga, Tenn		70	8 93	625 10
Total		1	1,795		16,084 43

Respectfully submitted.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

I.—Copy of correspondence regarding the manufacture of clothing by the Navy Department according to the system prevailing at the Philadelphia depot of the Quartermaster's Department.

SCHUYLKILL ARSENAL,
Philadelphia, June 24, 1879.

MY DEAR GENERAL: Paymaster-General Cutter, of the Navy, has sent me a very kind letter. I have had a copy made of it, and beg leave to inclose it. It seems that the Navy is satisfied that our work is "good," and are willing to follow in our wake.

Most respectfully, yours,

J. F. RODGERS.

General M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

NAVY DEPARTMENT,
BUREAU OF PROVISIONS AND CLOTHING;
Washington, D. C., June 23, 1879.

MY DEAR SIR: Now that the Bureau of Provisions and Clothing of the Navy Department is successfully under way in the manufacture of clothing for use in the Navy, I must express my grateful thanks for the kind consideration shown me and my assistants by yourself at the Schuylkill Arsenal, at Philadelphia. The information relative to all points in the purchase of material and the inspection of the same, the cutting out of garments and preparing them for the seamstresses, &c., as practiced at the Schuylkill Arsenal under your immediate direction and supervision, governed me entirely in making my own arrangements, and I have followed your manner in every particular, perfectly satisfied that I could not improve on your plans and method.

In my report to the Secretary of the Navy I expressed my indebtedness to you for the information so freely given, and I hope should any improvement in the machinery or in the manner of cutting, or in having the garments made up, suggest itself to you, that you will do me the favor to communicate the same to me, giving me the benefit of your practical experience.

Very respectfully and truly, yours,

GEO. F. CUTTER,

Paymaster-General, U. S. N., Chief of Bureau of Provisions and Clothing.

Capt. JOHN F. RODGERS,
Assistant Quartermaster, U. S. A., Schuylkill Arsenal, Philadelphia, Pa.

Official copy.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

K.—*Copy of correspondence regarding the manufacture of materials for clothing of $\frac{3}{4}$ instead of $\frac{5}{8}$ of a yard wide.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, October 26, 1878.

CAPTAIN: Mr. S. J. Sohns, the contractor for shirting-flannel at Philadelphia and Jeffersonville, says "that there are only one to a thousand $\frac{5}{8}$ -looms as compared with $\frac{3}{4}$ -looms in the United States, and that to confine the competition for blue-flannels, and also for kerseys, to $\frac{5}{8}$, is to very much limit the competition; that, except in cutting large capes for overcoats, manufacturers think there is no advantage in $\frac{5}{8}$ goods over $\frac{3}{4}$. This is important. Formerly we made broad cloths and used broad kersey; but the foreign manufacturers have, by competition, ruined the broad-cloth manufacturers in the United States, and the broad looms have been got rid of."

You are requested to inquire into this subject with care, and forward a full report to this office.

Mr. Sohns further says that in the last bidding he offered $\frac{3}{4}$, but his offer was rejected for want of width, and that his bid, if accepted, would have saved about \$3,000 to the United States.

Very respectfully, your obedient servant,

M. C. MEIGS,
Quartermaster-General, Brevet Major-General, U. S. A.

Capt. JOHN F. RODGERS,
Military Storekeeper, U. S. A., Philadelphia, Pa.

PHILADELPHIA DEPOT OF THE QUARTERMASTER'S DEPARTMENT,
Philadelphia, December 9, 1878.

GENERAL: I have the honor to acknowledge the receipt of your letter of the 26th October, directing me to inquire into the subject of allowing the product of $\frac{3}{4}$ -looms to enter into competition with that of $\frac{5}{8}$ -looms in the supplying of Army woolen fabrics.

From all the information I have been able to obtain upon the subject, it appears that the use of broad looms has largely increased in this country of late years, and that of the narrow or $\frac{3}{4}$ looms has correspondingly diminished.

I have written for exact statistical information on this point to such sources as would be likely to have it, but their replies have been so long delayed that I have decided to report without them. Should they give such additional light upon the subject as it would be useful to have, I shall make a supplementary report.

There can be no disadvantage in using $\frac{3}{4}$ dark-blue (blouse) flannel; it can be as readily and economically cut as the $\frac{5}{8}$ article, but I would not recommend that any but $\frac{3}{4}$ kerseys and cloths be purchased. There are a sufficient number of broad-loom mills in the country to afford all the competition that could be desired.

The shirting-flannels are now made $\frac{3}{4}$ wide.

Very respectfully, your obedient servant,

JOHN F. RODGERS,
Captain and Military Storekeeper, U. S. A.

Brig. Gen. M. C. MEIGS,
Quartermaster-General, U. S. A., Washington, D. C.

WAR DEPARTMENT, QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., December 16, 1878.

CAPTAIN: Your letter of the 9th instant relative to $\frac{3}{4}$ and $\frac{5}{8}$ looms has been received.

The Quartermaster-General directs me to request you to state the reasons why $\frac{3}{4}$ cloth and kersey are better suited to the wants of the Quartermaster's Department than the $\frac{5}{8}$; also to give particulars showing that the number of $\frac{3}{4}$ looms has increased and of the $\frac{5}{8}$ diminished in this country of late years.

Very respectfully, your obedient servant,

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

Capt. JOHN F. RODGERS,
Military Storekeeper U. S. A., Philadelphia, Pa.

PHILADELPHIA DEPOT OF THE QUARTERMASTER'S DEPARTMENT,
Philadelphia, February 3, 1879.

GENERAL: In compliance with your instructions of December 16, 1878, directing me to give reasons for thinking that the broad loom ($\frac{6}{8}$) is better suited to the wants of the Quartermaster's Department than the narrow $\frac{3}{8}$ loom, and to give particulars showing that the number of $\frac{3}{8}$ looms has increased and that of the $\frac{6}{8}$ has diminished in this country, I have the honor to report as follows:

One of the largest manufacturers of looms in this country says: "There is now a greater proportion of broad to narrow looms used in making heavy woolens in the United States than at any period of its history. Very few narrow looms are now made for heavy woolens; nine-tenths of the looms ordered are broad." Another large manufacturer of looms says that his "orders for broad looms are greatly in excess of those for narrow"; and that for the last fifteen or twenty years the broad loom has been gradually, but with acceleration, taking the place of the narrow. During the same period (fifteen or twenty years) the competition between the manufacturers of heavy woollen fabrics in this country and abroad has been very great, and the United States has been able to hold its own only by the use of the broad loom. The demand for this loom has consequently been very great. It is a noticeable fact that in nearly all of the large woollen mills in operation throughout this country, particularly those of modern construction, having labor-saving and automatic appliances, and where the product is heavy and therefore of a costly character, the broad loom is in use. Take, for instance, the "Middlesex Company" of Lowell, Mass. This mill is one of the largest and best in the United States. It makes beavers, coatings, flannels, police and yacht cloths, and other heavy fabrics of a character similar to those used in the Army.

It uses *two hundred and twenty-eight* broad looms, and but *one* narrow; the latter is probably a pattern loom. The "Washington Mill," also of Lowell, is similar to the "Middlesex." It has 383 broad looms. "The New Albany (Ind.) Woolen Mills," now under contract with the department for dark-blue flannel, uses 140 looms, the greater number of which are broad. This mill makes several grades of goods. The higher grades (our flannel is one of them) are made upon the broad looms; the lower and cheaper fabrics are woven upon the narrow. If the narrow be equally good with the broad, why should this mill use the latter for its higher-priced products? The superintendent of this mill, an excellent manager, is unqualified in his belief in the superiority of the broad over the narrow loom for heavy and costly woolens. "The Conshohocken (Pa.) Woolen Mills" (George & James A. Bullock, proprietors) made during the late war large quantities of cloth, kersey, and flannel for the Army, often being the lowest bidders at a time when $\frac{3}{8}$ goods were accepted. This mill uses 63 broad looms.

For all or nearly all cotton fabrics, for mixed cotton and woollen goods, for cheap woollen goods, and for fine and light weight woollen flannels, cassimeres, and checks, the narrow ($\frac{3}{8}$) loom is, perhaps, the best. (The "Tremont Cotton Mill" of Lowell uses 2,300 narrow and no broad looms.) For shirting flannel, present standard, which has a cotton warp, and 25 per cent. of cotton in the filling, the narrow loom is as good, if not better, than the broad, and I would not advise any change. Paradoxically a stronger and heavier cloth can be made upon a narrow loom than upon a broad one, as the filling can be driven up closer upon the former, there being less vibration, owing to the fact that the distance traveled by the shuttle is but half as great. While this may be said for the narrow loom, it is not to be understood as denying to the broad the capacity to make its product sufficiently strong for all purposes of durability and wear. A manufacturer tells me that it is possible to use a greater proportion of shoddy upon the narrow than on the broad loom, for the thread used in filling being only half the length of that upon the broad loom the tensile strength can be proportionally lessened. I do not altogether accept this theory.

Throughout the country, particularly in the non-progressive manufacturing districts, the small, old-fashioned woollen mills use the narrow looms. For small contracts, or when time is of but little consequence, these mills can possibly compete with the newer broad-loom concerns. In 1857 the broad loom was greatly improved, and a higher degree of velocity obtained for the shuttle, which now makes from 75 to 80 picks per minute. Prior to that time only 45 to 50 picks per minute were possible. The narrow loom gives from 90 to 95, and, in some instances, 100 to 120 picks per minute. There is, therefore, about 30 per cent. more cloth woven in a minute on a broad than on a narrow loom. The cost of the broad loom is as four to three; that is, the former cost \$400, and the latter \$300. The cost of labor proportionately is $2\frac{1}{2}$ cents per yard for narrow and 4 cents for broad. The superficial space required is relatively the same. The product of the broad loom is, as a general thing, evenner than that of the narrow. This largely explains why the manufacturers of such fabrics as cloths, kerseys, and outside-wear flannels prefer the broad looms, and why the use of the narrow is usually confined to the cheaper and lighter articles of woollen goods, a large proportion of which is made in the small old-fashioned mills. To advertise for $\frac{3}{8}$ cloths or

outside flannels would only be an invitation to narrow-loom weavers to divert their machinery from its legitimate calling to attempt that which is better and more cheaply done by the broad loom.

Formerly, when garments were cut in single suits, the $\frac{3}{4}$ cloths were more popular with retailers and tailors than the broadcloths of these days. In this epoch of machinery, as applied to the manufacture of clothing, large operators prefer and demand the $\frac{3}{4}$ cloth as more economical and desirable. There is relatively less waste (but two instead of four selvages), and a greater likelihood of uniformity of color. I have never seen a cutter who did not unhesitatingly pronounce in favor of the $\frac{3}{4}$ material as more economical, and more likely to be uniform in color.

The Quartermaster's Department is a large manufacturer, and, in my opinion, is the gainer in calling for the product of the broad loom, particularly when heavy material is required.

I have the honor to be, general, very respectfully, your obedient servant,

JOHN F. RODGERS,

Captain and Military Storekeeper, U. S. A.

Brig. Gen. M. C. MEIGS,

Quartermaster-General, U. S. A., Washington, D. C.

Official copy:

J. D. BINGHAM,

Deputy Quartermaster-General, U. S. A.

L.—*Extract from the annual report of Capt. John F. Rodgers, Military Storekeeper, U. S. A., at the Philadelphia depot of the Quartermaster's Department, for the fiscal year ending June 30, 1879.*

PHILADELPHIA DEPOT OF THE QUARTERMASTER'S DEPARTMENT,

Philadelphia, June 30, 1879.

GENERAL: * * * During the past year I have continued the system of inspections of materials and articles of clothing in process of manufacture at the various establishments where contractors were at work, and the result has been useful and satisfactory to all parties concerned. It is the only reliable mode of obtaining a thorough knowledge of raw materials and the character of machinery and labor employed. In this way contractors are kept vigilant and careful in the discharge of their obligations, and their character and that of their factories thoroughly ascertained. It is important, in my opinion, that these visits should be of frequent occurrence while contracts are in force. Business during the past year has been so dull and unreliable, commercially, that manufacturers and dealers have sought eagerly for contracts under the government and at very low prices. There has never been a time since I have been in the Army when such unremitting care and watchfulness has been necessary. Contractors, in many instances, have filled their contracts at a loss, and the temptation to offer inferior articles has often appeared. I believe, however, that, as a general rule, they have been filled faithfully.

I have heard but few complaints of the clothing and equipage issued during the past year. On the contrary, this office is in possession of many complimentary notices of the steady improvement in the quality and workmanship of the clothing now issued. The system of inspection in use at this depot has been adopted by the Navy Department and by the Marine Corps, and the honorable Secretary of the Navy has lately authorized and established a manufacturing department for that arm of the service of a similar character to that of the Quartermaster's Department, U. S. A. The State of Pennsylvania, in clothing its National Guard, requested the honorable Secretary of War to allow the material to be inspected at this depot, and it was done under my supervision. The Adjutant-General of the State, in his annual report, alludes in flattering terms to the satisfactory manner in which this service was performed.

I have the honor to remain, general, very respectfully, your obedient servant,

JOHN F. RODGERS,

Captain and Military Storekeeper, U. S. A.

Brig. Gen. M. C. MEIGS,

Quartermaster-General, U. S. A., Washington, D. C.

Official extract:

J. D. BINGHAM,

Deputy Quartermaster-General, U. S. A.

M.—*Statement of returns of clothing, camp and garrison equipage, received and examined, and of letters received and written, during the fiscal year ending June 30, 1879.*

Number of returns on hand June 30, 1878.....	1, 139
Number of returns received during the fiscal year.....	3, 908
Total	5, 047
Number of returns examined during the fiscal year	3, 928
Number of returns on hand for examination June 30, 1879.....	1, 119
Number of letters received pertaining to settlement of accounts, and to inspection reports and boards of survey	3, 753
Number of letters received pertaining to purchase, manufacture, and issue of clothing and equipage.....	1, 996
Total	5, 749
Number of letters written pertaining to settlement of accounts, and to inspection reports and boards of survey	7, 616
Number of letters written pertaining to purchase, manufacture, and issue of clothing and equipage.....	2, 734
Total.....	10, 350

Respectfully submitted.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

N.—*Statement of the clerical force employed in the clothing and equipage branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1879.*

	Clerks.	Copyists.	Laborers.
On the 30th of June, 1878.....	11	2	1
On the 30th of June, 1879.....	11	2	1

In addition to this force, one copyist was employed during the whole year in copying old records.

Respectfully submitted.

J. D. BINGHAM,
Deputy Quartermaster-General, U. S. A.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September 18, 1879.

No. 5.—*Annual report of Lieut. Col. Henry C. Hodges, Deputy Quartermaster-General, United States Army, of the operations of this office pertaining to transportation, indebted railroads, regular and miscellaneous supplies, and miscellaneous claims, during the fiscal year ending June 30, 1879.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., September —, 1879.

GENERAL: I have the honor to submit the following report of the operations of this office pertaining to transportation, and indebted railroads, regular and miscellaneous supplies, and miscellaneous claims, during the fiscal year ending June 30, 1879:

TRANSPORTATION.

Fifty-nine thousand one hundred and seventy-seven persons, 4,921 beasts, and 120,440 tons of material were transported by rail, water, wagon, and stage, under the direction and supervision of the Quartermaster's Department during the fiscal year.

The total cost, as reported by officers for this service, aggregates \$2,215,968.05; \$499,206.90 being for the transportation of persons, and \$1,716,761.15 for transportation of beasts and material.

The following were the larger movements of troops during the year, with the average length of the march or movement in each case:

First Cavalry, Company D, from Department of California to Department of the Columbia, 1,005 miles.

Fourth Artillery, Companies A and D, from Department of the Columbia to Department of California, 788 miles.

Eighth Infantry, Companies A, B, C, D, E, G, I, and K, from Department of Arizona to Department of California, 1,234 miles.

Tenth Infantry, headquarters and Companies A, B, C, D, E, F, G, H, I, and K, from Department of Texas to Department of the East, 1,935 miles.

Twelfth Infantry, Companies B, C, D, E, F, G, H, I, and K, from Department of California to Department of Arizona, 1,268 miles.

Eighteenth Infantry, headquarters and Companies A, B, C, D, E, F, G, H, I, and K, from Department of the South to Department of Dakota, 2,424 miles.

Twenty-second Infantry, headquarters and Companies A, B, C, D, E, F, G, H, I, and K, from Department of the East to Department of the Missouri and Texas. (Statement marked B.)

With reference to the movements of the Tenth, Eighteenth, and Twenty-second Infantry, I have the honor to invite your attention to the economy in the cost of these movements, effected by the judicious excitement of competition among transportation companies by quartermasters.

The Tenth Infantry, consisting of 359 persons, with their baggage, accoutrements, and stores, was transported from the military posts it garrisoned in the interior of Texas, and on the Rio Grande, and distributed among the various posts on the lakes, an average distance of 1,935 miles, at a cost of \$7,893.75; or about \$22 per man.

The Eighteenth Infantry, consisting of 367 persons, with baggage, &c., was transported from Atlanta, Ga., to Bismarck, Dak., 1,617 miles, all rail, for \$15,645.23; or about \$42.50 per man. From Bismarck, the regiment was transported to Fort Assinaboine, Dak., 807 miles, by water and wagon, for \$10,062.43, in all, 2,424 miles, for \$25,707.66; or \$70 per man.

The Twenty-second Infantry, 438 persons, with baggage, &c., was transported from the military posts on the lakes, to the various military posts in the Department of Texas, to which the regiment was assigned, an average distance, by rail and wagon, of 1,629 miles, for \$11,357.14; or about \$26 per man.

The routes involving the least land-grant railroad travel bid the lowest through cash rates; which were much less than would have been paid at tariff rates, after deduction of the proportions earned by the longest land-grant railroads, if those routes had been taken, and which were considerably less than half-tariff rates without land-grant deduction, by any route which could have been selected.

RAILROAD TRANSPORTATION.

During the year the Quartermaster's Department moved by rail 29,710 persons, 3,758 beasts, and 57,866 tons of material, and for this service an expenditure of the appropriation for Army transportation is reported by disbursing quartermasters of \$271,379.34, for transportation of persons, and of \$330,157.19 for the transportation of live stock and freight. Total \$601,436.53.

Settlements for military transportation over the bonded Pacific railroads, are not now made out of the appropriations of the Quartermaster's Department, and since 1874 no payments have been made out of such appropriations for transportation over land-grant railroads. The value of this service over the Pacific roads during the past year was about \$700,000, and over the land-grant roads, the estimated value at full tariff rates of the respective roads was \$225,000; at 66 $\frac{2}{3}$ per cent. of these rates which was paid to land-grant railroads prior to the law of 1874, forbidding payment, the amount would be \$150,000; thus, the total estimated worth of the transportation furnished by railroad companies on account of the Quartermaster's Department during the year ending June 30, 1879, was \$1,451,436.53.

The requests of the Quartermaster's Department upon railroads for through transportation at through rates are generally complied with, but a number of land-grant railroads and their immediate connections have refused, because the laws prohibiting payments for military transportation over land-grant railroads are still on the statute book unrepealed, notwithstanding the decision of the Supreme Court, settling the principle that they are entitled to *some* compensation for such service.

Thus, a traveler paying cash can purchase a through ticket at reduced rates, which will transport him over many roads and to almost any point on the continent, while the Quartermaster's Department is in some cases constrained by existing law to issue separate requests to each line forming a through connection, and to settle on those requests at the high local rates of each separate road, instead of the reduced through rates offered by railroads, in combination, to the public.

To exemplify the motives actuating these recusant railroads: A land-grant railroad which is refused payment for military transportation over its own line of road, is naturally unwilling to accept a request covering transportation over other roads, for, by so doing, it must pay from its own coffers for the transportation over the other roads, receiving in return from the Quartermaster's Department the exact amount so paid, thus consuming time and labor and using its money apparently without recompense or consideration.

On the other hand, a railroad connecting with a land-grant railroad is unwilling to accept a request covering transportation over its land-grant connection, because it thereby assumes the liability for the cost of that transportation, notwithstanding the fact that the Quartermaster's Department cannot pay for it.

The Quartermaster-General on November 23, 1878, addressed the presidents of all the prominent railroads of the country with the view of having all ticket agents instructed to receive transportation requests of the Quartermaster's Department, for through transportation involving the use of several roads, and furnish tickets thereon in all cases where such tickets are on sale between the points stated on the requests, settlements to be made by the Quartermaster's Department on the requests at the through rates for the through transportation, excepting

where a land-grant railroad should form a portion of the through line, in which case, certificates of the money value of such service and of its nonpayment are issued by the department in lieu of cash payments, which certificates, it was suggested, could in settlements between railroads be used for the land-grant transportation, in lieu of the cash divisions of the through rates.

The railroad companies were informed that such instructions if issued by all the roads would tend to secure uniformity in the system of providing military transportation throughout the country, would save the United States the additional cost involved in the issue of separate requests for local transportation to each line forming a through connection, and would prevent unnecessary clerical labor, and annoying changes of cars by officers and others traveling on public business.

The responses from the railroad companies all evinced a desire to accede to the requests of the Quartermaster-General. Eighty-seven railroads including the most prominent, replied by stating unconditionally that the instructions requested would be issued to their ticket agents. Ten railroad companies reported the refusal of their land-grant connections to accept certificates of service from the Quartermaster's Department in lieu of cash payments, and consequently their inability to issue through tickets for the Quartermaster's Department, unless by actually paying money to such connections. Five land-grant railroads replied with a refusal; fourteen land-grant railroads made no reply at all.

The result of the correspondence was, on the whole, gratifying and advantageous to the department, but it is clear that the department cannot get the full benefits of through rates until the present laws prohibiting payments to land-grant railroads for military transportation are modified or repealed altogether, and a definite per centum of what is due those roads specified and allowed, as was the case before the passage of the laws prohibiting payment altogether.

The Supreme Court having decided that the roads are entitled to some compensation, it only remains to fix by law or agreement the per centum to be paid the companies, and to be withheld, and it seems, under the decision referred to, no more than right to the government and the roads that this be done at an early date.

As a general thing it may be stated that the high local rates with deductions for land-grant paid for such through transportation, are found in many cases to equal and even exceed the through rates, with no deduction for land-grant.

The system of transportation in use in the Quartermaster's Department is found well adapted to the proper settlement of railroad accounts for the transportation of public property, provision being made for the enforcement of all laws relating to government transportation over bonded and land-grant railroads, and also over other roads at the best rates and in the best manner possible.

This system has attracted the attention of the officers of the several bureaus of the Treasury Department, the Navy Department, the Interior Department, and the Smithsonian Institution, and they have asked and obtained from the War Department authority to avail themselves of the official aid of officers of the Quartermaster's Department in the transportation of their property. Considerable quantities of stores are turned over to the Quartermaster's Department, and transportation provided under the authority so given, the accounts incurred being paid by the respective departments to which, after examination in this office, they are transmitted for settlement.

THE BONDED PACIFIC RAILROADS AND THEIR ACCOUNTS FOR MILITARY TRANSPORTATION.

The Pacific railroads which received aid in United States bonds, with their branches and leased lines, are still considered subject to the provisions of section 5260 Revised Statutes, directing the withholdment by the Secretary of the Treasury of all payments on account of transportation over their respective roads.

Under the provisions of the act of Congress of May 7, 1878 (U. S. Stat., chap. 96, section 27), establishing a sinking fund for the liquidation of the debts of the Union Pacific and Central Pacific Railroads to the United States, one-half of the compensation for military transportation performed by those roads on and after July 1, 1878, is carried to the credit of the said sinking fund; the other half is applied to the liquidation of the interest paid by the United States upon the bonds issued in behalf of the said roads.

In the deficiency appropriation law of March 3, 1879 (Public No. 86), the following provision is made:

That for the proper adjustment of the accounts of the Union Pacific, Central Pacific, Kansas Pacific, Western Pacific, and Sioux City and Pacific Railroad Companies respectively, for services which have been or may be hereafter performed for the government for transportation of the Army and transportation of the mails, the Secretary of the Treasury is hereby authorized to make such entries upon the books of the department as will carry to the credit of said companies the amounts so earned or to be earned by them during each fiscal year and withheld under the provisions of section fifty-two hundred and sixty of the Revised Statutes and of the act of Congress approved May seventh, eighteen hundred and seventy-eight: *Provided*, that this shall not authorize the expenditure of any money from the Treasury nor change the method now provided by law for the auditing of such claims against the government: *Provided further*, that this paragraph shall not be so construed as to be a disposition of any moneys due or to become due to or from said companies respectively, or to in any way affect their rights or duties or the rights or duties of the United States under existing laws, it being only intended hereby to enable the proper accounting officers to state on the books of the Treasury the accounts between the government and said companies respectively.

The honorable the Secretary of War, and the accounting officers of the Treasury have decided that the effect of this provision of law is to release the appropriations for Army transportation from any charges on account of transportation over the railroads named, and the amounts found due are not taken from those appropriations as was done prior to the law of March 3, 1879.

This law, so interpreted, operates so as to close and settle adjusted accounts of these roads not previously settled, because the Army transportation appropriation applicable had been expended for other legitimate purposes.

The following statement indicates the amounts of such outstanding accounts so settled:

Period of service.	Union Pacific.	Central Pacific.	Kansas Pacific.	Sioux City and Pacific.	Total
Prior to July 1, 1871	\$72 30	.....	\$1, 086 45	\$47 00	\$1, 205 75
Year ending June 30, 1872	18 95	.....	16 21	.....	35 16
Year ending June 30, 1873	315, 822 28	\$47, 601 66	86, 369 40	2, 914 69	452, 708 03
Year ending June 30, 1874	11, 780 63	58 89	551 38	.....	12, 390 90
Year ending June 30, 1875	182, 913 32	20, 806 86	16, 565 99	.....	220, 286 17
Year ending June 30, 1876	51, 895 31	53, 215 01	101, 098 45	.....	206, 208 77
Year ending June 30, 1877	5, 819 30	292 12	55, 303 94	.....	61, 415 36
Year ending June 30, 1878	467, 331 03	59, 793 51	.....	.....	527, 124 54
Year ending June 30, 1879	101, 390 30	138 00	150 00	.....	101, 678 30
Total	1, 137, 043 42	181, 906 05	261, 141 82	2, 961 69	1, 583, 052 98

The following statement indicates the amounts of all other outstanding accounts of these railroad companies for military transportation which will also be closed and settled and passed to the credit of the roads under the provisions of the law of March 3, 1879:

Period of service.	Union Pacific.	Central Pacific.	Kansas Pacific.	Total.
Year ending June 30, 1873		\$961 55		\$961 55
Year ending June 30, 1874	\$3,041 06	18,371 73		21,412 79
Year ending June 30, 1875	9,224 27	16,637 51	\$242 82	26,104 60
Year ending June 30, 1876	12,735 86	12,084 52		24,820 38
Year ending June 30, 1877	11,626 59	23,472 39	74 73	35,173 71
Year ending June 30, 1878	67,329 88	104,960 08		172,289 96
Year ending June 30, 1879	68,765 58	134,443 97		203,209 55
Total	172,723 24	310,931 75	317 55	483,972 54

The total amounts paid for military transportation over these roads from the date when they were first opened for traffic up to the close of the fiscal year ending June 30, 1879, may be stated as follows:

Names of companies.	Amount paid in cash.	Amount credited on bonds under act of July 2, 1864.	Amount withheld under act of March 3, 1873 (Rev. Stat., 5260, and act of May 7, 1878).	Total.
Union Pacific	\$1,690,034 44	\$1,690,034 62	\$3,230,201 57	\$6,610,270 63
Central Pacific	223,517 45	223,517 43	505,198 33	952,233 21
Kansas Pacific	880,341 07	880,341 08	525,684 34	2,286,366 49
Sioux City and Pacific	4,403 89	4,403 90	20,681 33	29,489 12
Total	2,798,296 85	2,798,297 03	4,281,765 57	9,878,359 45

One hundred and forty-six thousand nine hundred and forty-three dollars and forty cents of the amount withheld from the Union Pacific Railroad Company, being for services subsequent to July 1, 1878, has been applied as directed by the act of Congress of May 7, 1878. Of this amount, \$45,553.10 was paid out of the Army transportation appropriation for fiscal year ending June 30, 1879; the accounts being settled before the passage of the law of March 3, 1879, releasing that appropriation from such charges, and the remainder, \$101,390.30, was settled under the law of March 3, 1879, without expenditure of Army transportation funds.

The following is a statement of the transportation service performed by the Pacific railroads for the department during the fiscal year ending June 30, 1879:

Names of companies.	Number of persons transported.	Number of animals transported.	Pounds of freight transported.
Union Pacific	6,556	1,088	44,370 129
Central Pacific	2,688	112	2,906,734
Kansas Pacific	1,081	558	4,487,419
Sioux City and Pacific	161	28	383,300
Total	10,486	1,786	52,147,582

The cost of this service may be stated as follows:

Names of companies.	Amount of ac- counts referred to Treasury for settlement.	Amount of ac- counts render- ed and under examination July 1, 1879.	Esti m a t e d amount of ac- counts not yet rendered.	Total.
Union Pacific	\$149, 562 35	\$66, 146 63	\$248, 234 42	\$463, 943 40
Central Pacific	62, 009 31	72, 434 66	20, 556 03	155, 000 00
Kansas Pacific			100, 000 00	100, 000 00
Sioux City and Pacific			3, 000 00	3, 000 00
Total	211, 571 66	188, 581 29	371, 790 45	721, 943 40

The following is a statement of all unsettled accounts of these companies which were at the close of the fiscal year under adjustment in this office and the Treasury Department:

Names of companies.	In Treasury.	In Quarter- master-Gen- eral's Office.	Total.
Union Pacific	\$19, 777 67	152, 945 57	172, 723 24
Central Pacific	138, 513 19	172, 418 56	310, 931 75
Kansas Pacific	317 55		317 55
Total	158, 608 41	325, 364 13	483, 972 54

LAND-GRANT RAILROAD ACCOUNTS.

The sundry civil appropriation law of March 3, 1879, contained the following provision:

For the payment of arrears of Army transportation due such land-grant railroads as have not received aid in government bonds, as compensation was withheld from under the acts of June sixteenth and twenty-second, eighteen hundred and seventy-four, and March third, eighteen hundred and seventy-five, to be adjusted by the proper accounting-officers in accordance with the decision of the Supreme Court in cases decided under the said acts, to be paid as other Army transportation, but in no event shall more than fifty per cent. of the full amount allowed by the Quartermaster-General be paid until the decision of the Court of Claims be had in each case, three hundred thousand dollars, or so much thereof as may be necessary.

The phraseology of this provision of law not being clearly understood, the Quartermaster-General submitted it for the interpretation of the Second Comptroller of the Treasury. The correspondence, including the decision of the Second Comptroller, is appended, marked C.

It is thought that the premises of Mr. Thomas's opinion, which appears in that correspondence, are not quite accurate. No land-grant railroad is known by this office to have agreed to do the work of transportation "without charge," except those of which the law expressly required such free service.

The forty-one railroads named in Mr. Thomas's brief, which are decided to be entitled to receive payment out of the appropriation of \$300,000 in the act of March 3, 1879, are those to which grants of land were made on the condition, substantially, "that said railroads shall be and remain public highways for the use of the Government of the United States, free from all toll or other charge upon the transportation of any property or troops of the United States."

Prior to the prohibitory law of June 16, 1874, the War Department had paid these roads for service done by its employes and cars and engines two-thirds of tariff rates, reserving the remainder as a fair deduction for the use of their respective railroads, and these settlements were, so far as known to this office, agreed to and accepted by the railroad companies.

Congress, however, by the acts of June 16, 1874, and subsequent acts, prohibited any payment whatever to these roads by the Quartermaster's Department, and remanded them to the courts to recover their dues.

The decision of the Supreme Court, to which a test case was appealed, sustains the practice of the department before the passage of the prohibitory laws, by announcing—

That the government, under the land-grant laws, is entitled only to the free use of the railroad—not to the equipment, rolling-stock, &c.—and that it is not entitled to have its troops and property transported by the companies over their respective railroads free of charge; that the companies are entitled to compensation for all transportation performed by them, respectively, of troops and property of the government, subject to a fair deduction for the use of their respective railroads.

The following is a statement of land-grant railroad accounts filed in the Quartermaster-General's Office, settlement of which has been requested under the provisions of the sundry civil law of March 3, 1879, showing their number, amount, and status on June 30, 1879:

Names of railroad companies.	Accounts as rendered at full tariff rates.		Examined, adjusted, and referred to Treasury for settlement.		Disallowed and returned to railroad companies.		Awaiting examination in Quartermaster-General's Office.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Chicago, Milwaukee and Saint Paul	20	\$22,380 90	14	\$16,011 89	1	\$131 62	5	\$6,187 65
Saint Paul and Sioux City	6	25,800 97	6	24,948 76				
South and North Alabama	14	8,654 96	9	2,928 30			5	5,726 66
Mobile and Ohio	17	17,048 00					17	17,048 00
Illinois Central	28	65,975 68	10	40,025 10	3	1,138 00	15	24,717 28
Lake Superior and Mississippi	10	46,162 30	10	46,197 68				
Morgan's Louisiana and Texas	3	2,617 63	3	2,449 12				
Saint Paul and Duluth	10	9,084 27	10	8,979 47				
Western Railroad of Minnesota	22	12,411 71	17	6,765 99			5	5,646 73
Mobile and Montgomery	7	4,059 71					7	4,059 71
Atchison, Topeka and Santa Fé	45	293,046 12	17	230,283 30			28	62,753 03
Chicago and Northwestern	5	25,648 94	3	7,869 29			2	17,769 25
West Wisconsin	2	18,906 18	2	18,978 24				
Leavenworth, Lawrence and Galveston	3	1,061 15					3	1,061 15
Chicago, Rock Island and Pacific	3	67,489 84	3	67,487 84				
Alabama and Chattanooga	2	2,396 35					2	2,396 35
Atlantic, Gulf and West India Transit	1	568 40					1	568 40
Northern Pacific (operating Western Railroad of Minnesota)	1	1,267 78	1	1,267 78				
Chicago, Burlington and Quincy	2	26,000 61	2	26,000 61				
Grand Rapids and Indiana	1	105 52					1	105 52
Missouri Pacific	3	17,933 85	3	17,622 06				
Burlington and Missouri River	3	3,565 73					3	3,565 73
Hannibal and Saint Joseph	7	3,314 76					7	3,314 76
Vicksburg and Meridian	3	697 96					3	697 96
Pensacola	2	3,114 99					2	3,114 99
Missouri, Kansas and Texas (for the Missouri Pacific)	1	4,216 81	1	4,216 81				
Selma, Rome and Dalton	3	2,093 71					3	2,093 71
Aggregate of allowances by the Quartermaster-General's Office				522,032 24				
Aggregate of deductions by clerical corrections in the Quartermaster-General's Office				1,586 60				
Total	224	685,624 83	111	523,618 93	4	1,269 62	109	160,736 28

Eight accounts of the Missouri River, Fort Scott and Gulf Railroad (heretofore treated as land-grant), amounting to \$23,660.46, have been filed in this office, with claim that, as the road has been decided not land-grant by the honorable the Secretary of the Interior, under the law of March 3, 1877, payment of full tariff rates should be made for military transportation out of regular Army transportation appropriations.

The Second Comptroller of the Treasury, in opinion July 7, 1879, has decided that payments may be made for transportation furnished by said railroad subsequent to May 25, 1877.

Fifty per centum of the gross amount at tariff charges of the land-grant railroad accounts referred by this office to the Treasury up to June 30, 1879, payable from the \$300,000 appropriated by the sundry civil law of March 3, 1879, is, as shown by foregoing statement	\$261,016 12
Fifty per centum of the amount of the accounts awaiting adjustment in this office is	80,368 14
Payments have already been made out of the appropriation, by the Treasury, of accounts not included in the foregoing statement, which had been referred to the Treasury by this office prior to the sundry civil law of March 3, 1879, as follows:	
Northern Pacific Railroad	21,051 69
Missouri Pacific	3,533 10
Atchison, Topeka and Santa Fé Railroad	378 16
Estimate of 50 per centum of amount of unpaid accounts at the Treasury not included in the foregoing statement	35,000 00
Estimate of 50 per centum of unpaid accounts still in the hands of the railroad companies	48,652 79
<hr/>	
Total estimate of 50 per centum of land-grant railroad accounts accrued up to June 30, 1879	450,000 00
The amount appropriated to pay them is	300,000 00
<hr/>	
Deficit, indicating the additional amount required to settle outstanding land-grant railroad accounts, on the basis of 50 per centum of tariff rates for service up to June 30, 1879	150,000 00

A number of land-grant railroads have derived no benefit from this appropriation of \$300,000, as it was exhausted before their accounts were reached in due course.

Justice to the forty-one land-grant railroads involved, and a due regard to the interests of the Quartermaster's Department, would seem to demand the repeal of the laws prohibiting payments for their services in transporting troops and supplies.

A return to the practice of reserving some portion and paying the balance of the value of the transportation performed by them for the Quartermaster's Department, which worked well, and which in most if not all cases was satisfactory to the railroad companies, will, it is hoped, be authorized and directed by Congress.

It is believed that this method, compared with the others which have been suggested, will be found the most just solution of the difficulties surrounding the case.

The views of this office on the subject are set forth in Senate Ex. Doc. No. 28, Forty-fifth Congress, second session (parts 1 and 2), printed as an appendix to this report, marked D.

A simple fixed reduction of one-third the rates charged the public seems reasonable and just as the measure of the value of the use to the government of the railroad as a highway, and after careful study of the questions involved, it is believed to be as correct a ratio of reduction as can be devised under the circumstances. It is eminently practicable, and if adopted by Congress would, it is believed, settle the matter to the satisfaction ultimate y of all parties concerned.

An appropriation of \$300,000 would settle nearly if not quite all outstanding land-grant railroad accounts on a basis of two-thirds of tariff rates.

A repeal of the prohibitory laws of June 16 and 22, 1874, and March 3, 1875, with direction to pay 66 $\frac{2}{3}$ per cent. of rates paid by the public for such transportation, would, it is believed, authorize payment thereafter out of the regular Army transportation appropriation.

The following railroads which received grants of land on the condition that the companies owning or operating them "shall at all times transport the troops and property of the United States free of all cost, charge, or expense to the United States," have always been considered as bound to furnish transportation free to the United States, as unambiguously provided in the conditions quoted, to wit:

Names of companies.	From—	To—	Miles.
1. California and Oregon (Central Pacific, Oregon Division).	Junction with Central Pacific.	Southern boundary of Oregon.	Incomplete.
2. Chicago, Milwaukee and Saint Paul (Hastings and Dakota Division) Minnesota.	Hastings, Minn.	Western boundary of the State.	Incomplete.
3. Little Rock and Fort Smith, Arkansas.	Little Rock, Ark.	Fort Smith, Ark.	168.35
4. Memphis and Little Rock, Arkansas	Mississippi River, opposite Memphis.	Little Rock.	135
5. Michigan Central (Saginaw and Mackinaw Division) Michigan.*	Amboy, Mich.	Straits of Mackinac.	Incomplete.
6. Missouri, Kansas and Texas, Kansas.	Junction City.	Southern boundary of Kansas, and to Fort Smith, where the Indian title is extinguished.	182.56
7. Oregon and California, Oregon.	Portland, Ore.	Southern boundary of the State.	Incomplete.
8. Southern Minnesota, Minnesota.	Mississippi River, opposite La Crosse, Wis.	Western boundary of the State.	Incomplete.
9. Saint Louis, Iron Mountain and Southern (Missouri and Kansas).	Mississippi River, opposite Cairo, Ill., via Poplar Bluff, Mo., and Little Rock, Ark.	Texas State boundary at Texarkana.	395

* Constructed and in operation as a land-grant railroad only from Lansing to Bay City, Mich., thence northward. That portion of the road from Jackson to Lansing is not a land-grant road.

WAGON AND STAGE TRANSPORTATION.

The Quartermaster's Department transported by wagon, including contractors' trains, teams hired for special services, and public teams, 32,539 tons of military stores. The cost of this service as reported by disbursing quartermasters was \$858,142.56.

Thirty-one contracts for wagon transportation, made by officers of the Quartermaster's Department, were received at this office during the year, an abstract of which, showing names of contractors, routes of supply, and rates of contracts, accompanies this report, marked E.

Three thousand two hundred and eighty-five passengers and 48,061 pounds of military stores and extra baggage were transported by stage under direction of the Quartermaster's Department during the year, at a cost of \$76,747.12.

WATER TRANSPORTATION.

During the fiscal year there were carried by water, for the department, 26,182 persons, 1,163 beasts, and 30,011 tons of material, at a cost of \$679,641.84.

This service was rendered by vessels belonging to established com-

mercial lines, by contract, and by vessels owned and chartered by the United States.

Six contracts for water transportation, made by officers of the Quartermaster's Department, were received at this office during the year, an abstract of which accompanies this report, marked F.

The following named vessels owned by the War Department have been in service of the Quartermaster's Department during the fiscal year, viz: Steamer Henry Smith, in New York Harbor; propeller Ordnance, employed by Ordnance Department in New York Harbor; steam-tug Atlantic, in New York Harbor; propeller General McPherson, in San Francisco Harbor; steam-launch General Jesup, employed at Fort Adams, R. I.; steam-launch Thayer, in Boston Harbor; steam-launch Monroe, employed at Fort Monroe, Va.; steam-launch General Greene, employed at Fort McHenry, Md.; steam-launch Hamilton, employed at Washington, D. C., and David's Island, New York Harbor; steam-launch Barrancas, employed at Fort Barrancas, Fla.; steamboat General Sherman, employed on the Upper Missouri and Yellowstone Rivers; schooner Matchless, employed at Key West, Fla.

The total cost of running and maintaining these vessels during the year was \$104,305.28.

The steam-launch Hamilton being no longer required at Washington, D. C., was transferred, August 1, 1878, to David's Island, New York Harbor, for service at the principal depot, general recruiting service, United States Army.

Owing to the removal of the headquarters Department of the East, and Military Division of the Atlantic, from New York City to Governor's Island, New York Harbor, it was deemed necessary to purchase a steamer for the purpose of keeping up communication between the island and the city. The steamer Atlantic, built by the Atlantic Iron Works, of Boston, Mass., was accordingly purchased for that service on October 15, 1878, by Lieut. Col. A. J. Perry, Deputy Quartermaster-General, U. S. A., Chief Quartermaster Military Division of the Atlantic, from Abisha Miller of Boston, Mass., for \$12,000.

Before the purchase was completed an examination of her woodwork and hull was made by the United States local inspectors of steam-vessels and the assistant naval constructor at the navy-yard, Boston, who reported her sound, of excellent material, and wanting no other repairs than paint or copper to make her in perfect condition for any service for which she is adapted. (Statement marked G.)

Her tonnage is 60.31 tons, custom-house measurement; length over all, 83 feet; breadth over all, 18 feet; draught loaded, 8 feet 9 inches.

Her hull is built of well-seasoned white oak frame and planking, copper fastened below the water-line, galvanized above, with two tree-nails in each frame wedged inside and out, and sheathed with yellow metal.

Engine, vertical direct acting, 22-inch diameter of cylinder, 18-inch length of stroke, with independent cut-off. Tubular boiler, 7 feet 6 inches in diameter, and 12 feet 6 inches in length.

Rate of speed from 10 to 13 knots an hour. Daily consumption of fuel about one and one-half tons of coal.

The average number of trips made daily by this vessel is 33, and the average number of passengers carried daily is 472.

After her purchase, some necessary alterations to adapt her to the service in which she is employed were made upon her, at a cost of \$1,865.56, making her total cost \$13,865.56.

According to the reports received from officers, there have been seventeen vessels of different kinds employed at various times under charter,

as the necessities of the service required, during the year, at an expense of \$32,462.81, a statement of which accompanies this report, marked H.

The total amount reported by officers of the department to have been expended on account of water transportation during the fiscal year is \$567,021.28.

The total amount of outstanding indebtedness for water transportation on the 30th of June, 1879, is reported to be \$112,620.56.

TRANSPORTATION ACCOUNTS AND CLAIMS.

One thousand five hundred and twenty-three accounts and claims, amounting to \$1,814,587.21, were adjusted in the transportation branch of this office during the year; of these, 1,343, amounting to \$1,340,510.19, were referred to the proper bureau or officer for settlement; 143, amounting to \$422,631.18, were unfavorably reported upon and rejection recommended to Secretary of War or accounting officers; and 37, amounting to \$51,445.81, were suspended for additional evidence; 276, amounting to \$548,060.56, were at the close of the fiscal year awaiting action or under adjustment.

INDEBTED RAILROAD COMPANIES.

At the close of the fiscal year ending June 30, 1878, there were five railroad companies whose names were borne on the list of indebted railroad companies hereinafter referred to, that had not paid their indebtedness to the United States for property purchased in 1865 and 1866, under Executive orders, or whose indebtedness had not been compromised and settled under the several acts of Congress passed for their relief. The amount due from these five companies was stated to be \$1,892,677.11. One of the companies, the Nashville and Northwestern, whose debt was \$908,550.27, has been transferred from the list of indebted companies to the list of companies whose debts have been paid in full, compromised and settled under the acts of Congress of March 3, 1871, February 27, 1875, and March 3, 1877, or who are insolvent, and, as stated in my last annual report, is now reported in the monthly and annual statements as insolvent, so that there are now but four railroad companies whose debts are collectable. Deducting the debt of this company, \$908,550.27, from the total indebtedness, \$1,892,677.11, and it leaves \$984,126.84 as the amount of the debts of the four companies on June 30, 1878.

During the fiscal year ending June 30, 1879, the interest and charges against these four companies amounted to \$42,591.49; the payments in military transportation were \$243.57, leaving unpaid July 1, 1879, \$1,026,474.76.

In addition to these payments, I received on account of the indebtedness of the Memphis and Little Rock Railroad Company, in postal dues, \$16,897.98, and of the Nashville and Northwestern Railroad Company, in military transportation, \$112.20. No payments were made in money by any of these companies.

At the last session of the Forty-fifth Congress, to wit, on March 3, 1879, an appropriation of \$300,000 was made to pay for military transportation over certain land-grant railroads. The act provided that only 50 per centum of the amount due any one railroad company, as found by the Quartermaster-General, should be paid. Under this law the accounting officers of the Treasury have audited accounts of the Mobile and Ohio Railroad Company, and have allowed thereon \$14,445.94; there is also due the McMinnville and Manchester Railroad Company, for

postal services, the sum of \$5,054.37, making a total of \$19,500.31, which will be placed to the credit of these companies when it has been received by this department.

Other services have been rendered by the Mobile and Ohio Railroad Company in transporting troops and property of the United States, for which it is entitled to compensation under its bond and under the decision of the Supreme Court of the United States in the case of the Atchison, Topeka and Santa Fé Railroad Company, but which cannot be allowed and placed to the credit of the company under existing laws.

In my last annual report I stated that there was due from the Post-Office Department for postal services on the Nashville and Northwestern Railroad the sum of \$55,581.92, which had been assigned to the Quartermaster's Department in part payment of the indebtedness of that company, but which could not be paid for want of an appropriation by Congress; that I had been informed that this amount would be reported to Congress by the Treasury Department as a balance due for carrying the mails, and an appropriation asked to pay it. No appropriation was made by the last Congress to pay the amount; it is, therefore, still unpaid, and I recommend that special effort be made, by submitting to Congress at its next session such communication as may be thought advisable, to secure the necessary appropriation.

I am informed by the Auditor of the Treasury for the Post-Office Department that the account with the railroad company for the service cannot be closed on the books of that office until an appropriation to pay it has been made and the amount has been paid to the party entitled to receive it. The indebted company cannot be credited on the books of this office with the amount until the money or its equivalent—a warrant on the Treasury for it—has been received; so that the books of both offices, and, consequently, the account with the railroad company in both offices, must remain open and unsettled until the appropriation has been made and the amount paid to the proper party. As no money is taken out of the Treasury, the amount being simply transferred from one fund to another—first, from the general fund to the appropriations for the Post-Office Department, and second, by warrant on the Treasurer of the United States by the Post-Office Department, in favor of the Quartermaster's Department, by which it is restored to the general fund—I cannot imagine that there can be any objection to appropriating the sum asked for. If anything in addition is needed to show the necessity for making the appropriation, it is found when we consider that it is a sum needed to liquidate an indebtedness incurred by the United States for carrying the mails, about which there is no dispute or question—an indebtedness admitted and certified to by the proper accounting officer of the Treasury Department. The objection to a specific appropriation can be met by passing a law which will authorize the Postmaster-General to adjust and settle the account for services rendered by the railroad company in carrying the mails, and to draw his warrant on the Treasurer of the United States for whatever sum he may find to be due for such services, *without specifying the amount in the law*, as was done in the case of the Western and Atlantic Railroad of Georgia, by the act of March 3, 1877 (19 Stat., 402, chap. 119), when the Secretary of War was directed to draw his warrant on the Treasurer of the United States for a sum that amounted to \$119,038.58. Such a law will enable the department to close the accounts, and will prevent the future payment of the amount to the railroad company when those who are familiar with the matter are no longer in the employ of the government.

Efforts which have for a number of years been made to secure the passage of a law directing the Secretary of War to reopen the settlements which have been made with those railroad companies that have paid their debts in full, and to refund to them a portion of the money received by the United States, estimated by this office to be about \$1,043,000, or 33½ per cent. of the amount received, were renewed by the railroad companies at the last session of the Forty-fifth Congress, but no definite action was taken.

At the extra session of the Forty-sixth Congress a bill was prepared and introduced for the same purpose, but no action was had upon it beyond consideration by the committee to which it was referred.

The views of the Quartermaster-General on the subject of reopening the accounts have been fully set forth in his communications to the Secretary of War of April 26, 1876. (See Senate Ex. Doc. No. 57, Forty-fourth Congress, first session, pages 7 to 15 inclusive, and of January 24, 1879, pages 17, 18, and 19 of the Congressional Record for February 9, 1879, No. 44.)

Accompanying this report is a table marked I, showing the original indebtedness of each company; the interest that has accrued thereon; the charges on account of expenses and overpayments; the increase or decrease of the debt of each company during the year; the payments made during the year; the total payments to June 30, 1879, and the balance unpaid. It also gives the names of those companies whose debts have been paid in full, or have been compromised and settled under the acts of March 3, 1871, February 27, 1875, and March 3, 1877, showing the amounts for which they were compromised; the amount unpaid at date of compromise; the amount refunded to the State of Georgia on account of the debt of the Western and Atlantic Railroad, under the act of March 3, 1877; and the names of those companies that are insolvent, and therefore unable to pay their debts, with the amount due from each.

During the fiscal year I received from these indebted railroad companies, in postal dues, the sum of \$16,897.98, which has been deposited in the Treasury of the United States according to law, and credited to the company making the payment.

REGULAR AND MISCELLANEOUS SUPPLIES.

Animals.—The following statement shows the number of horses and mules purchased in the several military departments, and at general and other depots, during the fiscal year; also their total cost and average cost:

Cavalry and artillery horses.

Where purchased.	Number.	Total cost.	Average cost.
Department of the East	26	\$3,820 00	\$146 92
Department of the South	1	175 00	175 00
Department of Dakota	190	21,097 48	111 03
Department of the Missouri	55	5,367 00	97 58
Department of the Platte	114	11,802 00	103 52
Department of California	52	6,650 00	127 88
Department of the Columbia	525	47,510 30	90 49
Department of Arizona	336	25,200 50	75 00
Department of West Point	9	1,178 50	130 94
New York Depot, New York	30	4,205 00	140 16
Jeffersonville Depot, Indiana			
Chicago Depot, Illinois	2	250 00	125 00
Saint Louis Depot, Missouri	346	28,909 20	83 55
Total	1,686	156,164 98	92 62

Mules and team-horses purchased.

Where purchased.	Mules.			Horses.		
	Number.	Total cost.	Average cost.	Number.	Total cost.	Average cost.
Department of the East.....				8	\$1,545 00	\$193 12
Department of the Missouri.....	186	\$19,950 00	\$107 25			
Department of the Platte.....	41	4,215 00	102 80			
Department of California.....	47	8,050 00	171 27			
Department of the Columbia.....	71	9,880 93	139 16			
Department of Arizona.....	12	1,400 00	116 66	1	100 00	100 00
New York Depot, New York.....	8	1,050 00	131 25	23	4,390 00	190 87
Washington Depot, District of Columbia.....	1	170 00	170 00	6	1,050 00	175 00
Jeffersonville Depot, Indiana.....						
San Francisco Depot, California.....				4	625 00	156 25
Chicago Depot, Illinois.....				2	250 00	125 00
Saint Louis Depot, Missouri.....	1,123	112,247 30	99 95		4,526 00	129 31
Total.....	1,489	156,963 23	105 41	79	12,486 00	158 05

The following is a tabular statement of the sales of public animals in the different departments and at the general and other depots, showing number sold and amount realized:

Department or depot.	Horses.		Mules.		Oxen.		Total.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
Department of the East.....	45	\$1,675 50	3	\$65 00			48	\$1,740 50
Department of the South.....	1	42 00	9	347 10			10	389 10
Department of Dakota.....	214	10,874 44	73	2,568 81	1	\$10 50	288	13,453 75
Department of the Missouri.....	271	9,208 35	132	4,163 15			403	13,371 50
Department of the Platte.....	287	14,600 67	95	4,116 76			382	18,717 43
Department of Texas.....	326	8,882 73	92	1,987 58			418	10,870 31
Department of California.....	28	1,121 00	13	296 00			41	1,417 00
Department of the Columbia.....	335	4,018 05	20	466 25			355	4,484 30
Department of Arizona.....	165	4,967 66	93	3,320 90	4	72 50	262	8,361 06
Department of West Point.....	6	236 50	2	55 50			8	292 00
New York Depot, N. Y.....	3	618 00	1	36 00			4	654 00
Washington Depot, D. C.....	3	98 50					3	98 50
Jeffersonville Depot, Ind.....	1	24 00	2	41 50			3	65 50
Willetts Point, New York Harbor.....	3	62 70					3	62 70
Jefferson Barracks, Mo.....	37	1,215 90					37	1,215 90
Total.....	1,725	57,646 00	535	17,464 55	5	83 00	2,265	75,193 55

SUMMARY.

The following is a summary of the number of animals purchased, sold, died, &c., during the fiscal year, and remaining on hand at its close:

On hand, purchased, &c.	Horses.	Mules.	Oxen.
On hand, July 1, 1873.....	11,375	9,688	59
Purchased.....	1,765	1,489	2
Taken up, &c.....	538	147	1
Total to be accounted for.....	13,602	11,324	62
Sold.....	1,725	535	5
Died.....	586	482	14
Lost and stolen.....	377	276	
Total sold, died, &c.....	2,688	1,293	19
On hand June 30, 1879.....	10,990	10,031	43

FUEL, FORAGE, AND STRAW.

The issues of forage and straw during the fiscal year were as follows: Corn, 628,268 bushels; oats, 952,473 bushels; hay, 53,078 tons; straw, 2,462 tons; barley, 180,529 bushels; bran, 51,934 bushels; fodder, 140 tons.

The issues of fuel during the same period were, hard wood, 42,096 cords; soft wood, 71,582 cords; anthracite coal, 19,131 tons; bituminous coal, 16,279 tons.

CONTRACTS.

There were filed in this office and examined during the fiscal year 878 contracts, as follows: 627, embracing 22,433,568 pounds of corn, 21,121,828 pounds of oats, 11,652,000 pounds of barley, 995,640 pounds of bran, 125,149,194 pounds of hay, 7,108,479 pounds of straw, 132,837 cords of wood, 70,614,740 pounds of coal, and 81,000 pounds of charcoal; 59 contracts for such quantities of fuel, forage, and straw as might be required; 17 for work upon national cemeteries; 47 for clothing, camp and garrison equipage; 10 for horses and mules; 6 for harness; 37 for transportation; 20 for buildings; 1 for stationery; 6 for Army wagons and ambulance wagons; 14 for miscellaneous services, and 34 contracts of lease.

ESTIMATES AND REQUISITIONS.

Estimates for annual supplies and miscellaneous estimates and requisitions have been received and acted upon during the fiscal year as follows:

From Military Division of the Atlantic	193
From Military Division of the Missouri.....	315
From Military Division of the Pacific.....	53
From Department of West Point.....	12
From New York Depot.....	3
From Philadelphia Depot.....	33
From Jeffersonville Depot.....	9
From Washington Depot.....	27
From San Francisco Depot.....	4
From miscellaneous sources.....	156
Total	805

WAGONS, AMBULANCES, AND HARNESS.

There were purchased during the year 281 six-mule Army wagons, 215 two-horse and four-horse or mule wagons, 72 spring wagons, 50 ambulance wagons, and 6 miscellaneous wagons, trucks, and drays. Of these, there were purchased under contract, after inviting proposals, 200 six-mule Army wagons, at \$89.90 each, from the Studebaker Brothers Manufacturing Company, of South Bend, Ind., contract dated September 16, 1878; 25 six-mule Army wagons, at \$200 each, from Henry M. Black, of San Francisco, Cal., contract dated March 26, 1879; 100 two-horse and four-horse or mule wagons, at \$83.00 each, from Wilson, Childs & Co., of Philadelphia, Pa., contract dated January 15, 1879; 100 two-horse and four-horse or mule wagons, at \$84.00 each, from the Kansas Manufacturing Company, of Leavenworth, Kans., contract dated January 18, 1879; 15 two-horse and four-horse or mule wagons, at \$200 each, from Henry M. Black, of San Francisco, Cal., contract dated March 26, 1879; 40 spring wagons, Dougherty pattern, at \$165 each, from Wilson, Childs & Co., of Philadelphia, Pa., contract dated September 9, 1878; 25 spring

wagons, Dougherty pattern, at \$149.50 each, from the Kansas Manufacturing Company, of Leavenworth, Kans., contract dated June 25, 1879; and 50 ambulance wagons, Army pattern, at \$174.50 each, from the Kansas Manufacturing Company, of Leavenworth, Kans., contract dated September 25, 1878.

Forty-one spring wagons were furnished to posts and depots during the year.

There were purchased during the year, under contract, after advertisement, 175 sets six-mule Army-wagon harness, from M. O'Brien & Co., of Carthage, Mo. (contract dated September 30, 1878), at \$57.10 per set, and 100 sets four-mule ambulance harness, from B. S. Richards, of Leavenworth, Kans. (contract dated September 25, 1878), at \$52 per set.

TRAVEAUX.

Upon the recommendation of the Army Equipment Board, convened in this city by Special Orders No. 244, Headquarters of the Army, Adjutant-General's Office, dated November 11, 1878, approved by the Secretary of War February 26, 1879, 150 traveaux (100 for sick and wounded transport, and 50 for freight transport), designed by Surg. Charles R. Greenleaf, U. S. A., who submitted a model with drawings and specifications thereof to the board, were manufactured at Philadelphia, Pa., with the necessary harness therefor, under orders from this office of March 11, 1879, to the depot quartermaster in that city, and, with the exception of two of each kind retained as samples, have been distributed for trial. Specifications thereof are appended hereto, (K.)

The cost of these traveaux and harness was as follows:

For sick and wounded transport, each.....	\$12 25
For freight transport, each	13 25
For harness, per set	6 50

FUEL.

A test of fuels has been carried on at this office during the year, with the view of preparing and publishing a new table of equivalents. This work is not yet concluded.

STOVES.

There were manufactured during the year by the Ordnance Department, at Rock Island Arsenal, Illinois, where the patterns and flasks are on hand, for the Quartermaster's Department, 150 Army cast-iron heating-stoves of adopted patterns, at a total cost of \$2,242.20, viz: 25 No. 1, at \$8.80 each; 25 No. 2, at \$18 each; 50 No. 6, at \$9.74 $\frac{2}{3}$ each; 50 No. 7, at \$21.70 each.

VETERINARY SERVICE.

A new standard supply-table of veterinary medicines, dressings, and instruments, prepared and recommended by the board of officers appointed by paragraph 12, Special Orders No. 183, Headquarters of the Army, Adjutant-General's Office, dated August 24, 1878, and approved by the Secretary of War, was published in General Orders No. 36, Headquarters of the Army, Adjutant-General's Office, dated March 27, 1879, to take effect July 1, 1879.

EXPLORING EXPEDITIONS.

The Quartermaster's Department furnished to surveys under charge of Lieut. George M. Wheeler, Corps of Engineers, U. S. A., during the year, aid and assistance as in the previous year.

IRON-HUBBED WHEELS.

Trials of iron-hubbed wheels have been continued during the year with generally favorable results. They have given satisfaction on the two and four horse or mule wagon.

TARGETS.

There were manufactured during the year by the Ordnance Department, at Rock Island Arsenal, Illinois, for the Quartermaster's Department fifteen cast-iron targets of the regulation pattern and sizes two (22" \times 72", nine 44" \times 72", and four 66" \times 72"), at a total cost of \$168.23.

Under General Orders No. 86, Headquarters of the Army, Adjutant-General's Office, dated August 16, 1879, the Ordnance Department will hereafter supply targets to the Army. Since July 1, 1879, fifteen targets have been manufactured by the Ordnance Department, at Rock Island Arsenal, Illinois, for the Quartermaster's Department (five each 22" \times 72", 44" \times 72", and 66" \times 72"), at a total cost of \$176.63.

APPROPRIATIONS FOR REGULAR SUPPLIES.

The amount estimated by this office for regular supplies for the Army during the fiscal year 1878-79 was \$3,500,000. The Secretary of War recommended the same amount. Congress appropriated \$3,350,000.

The amount remaining to the credit of the appropriation for regular supplies for the fiscal year 1878-79, on the books of the Treasury, July 1, 1879, was \$58,836.22, which, with the amount of that appropriation in the hands of officers of the Quartermaster's Department, will, it is thought, be sufficient to meet all outstanding indebtedness on that account for the year.

Accompanying this report, marked L, is a special report of transportation animals, vehicles, and men employed or kept at the San Antonio depot and post—showing how employed and why necessary, and cost of maintenance—submitted by the chief quartermaster department of Texas, in compliance with instructions from this office of July 11, 1879.

MISCELLANEOUS CLAIMS AND ACCOUNTS.

At the beginning of the fiscal year, 12,450 claims, amounting to \$6,895,873.79, and 328 accounts, in amount \$51,127.53, were on file, in the aggregate 12,778 claims and accounts, amounting to \$6,947,001.32; during the year 2,031 were received, amounting to \$273,472.93; total claims and accounts, \$7,220,474.25.

One hundred and fifteen claims were approved for \$9,577.04, being a deduction in the amount as presented of \$1,170.70; 181 claims were referred to the Third Auditor of the Treasury for action of the accounting officers, amounting to \$25,063.64; 162 claims, amounting to \$124,224.08, were referred to other departments to which they pertained; 120 claims,

amounting to \$25,264.82, were rejected; 863 accounts, amounting to \$39,303.88, were approved, being a deduction in the amount as presented of \$1,050.65; 445 were referred to other departments to which they pertained, amounting to \$30,964.48; 19 accounts, amounting to \$682.59, were rejected; total disposed of, 1,905 claims and accounts, amounting, as presented, to \$257,301.88; 12,513 miscellaneous claims and 391 accounts remain on file, amounting to \$6,963,172.37.

The number of miscellaneous claims and accounts received, it will be noticed, has been considerably greater during the past year than the year immediately preceding it; the aggregate amount of such claims and accounts has, however, been less by about one-half.

The number of claims and accounts considered and acted upon by this branch of the office in the past year has also been greatly in excess of the number considered and acted upon during any one of the three fiscal years preceding it; and yet the number of claims and accounts on hand at the close of the fiscal year (June 30, 1879) is larger than the year previous, though the work has been prosecuted with energy and great industry.

There has also been a corresponding increase in the number of communications received and the number of letters sent out.

The labor of this branch in connection with the examination and disposal of these claims and accounts has been considerable, and has demanded the unremitting attention and energy of the very small number of clerks engaged. In addition to this labor there is involved upon this branch the duty of properly instructing officers and others under the law, regulations, orders, and decisions governing in all matters, of a miscellaneous character, touching their rights to quarters and fuel, to forage, to transportation, allowance of baggage, mileage, and to reimbursements; also in questions relating to extra duty, pay, and commutation of quarters and fuel to enlisted men, under what circumstances allowed, &c., with very many others.

Instructions for supplying officers of the Quartermaster's Department with the official postage-stamps of the War Department, with all blank forms necessary in the preparation of their returns, both money and property, and with the various books of record, &c., emanate directly from this branch of the office.

The statement of miscellaneous claims appended to this report shows that there were on hand at close of the fiscal year ending June 30, 1878, 12,450 claims, amounting to \$6,895,873.79. In these figures are included claims for services and miscellaneous subjects, and small claims and vouchers for quartermaster's stores that have accumulated from time to time during and after the war at various offices of quartermasters throughout the country, and, not being called for or prosecuted, have been filed in this office as the proper place for their deposit and for reference and action when called up.

The following statements exhibit the number and amounts of transportation claims and accounts and miscellaneous claims and accounts on hand July 1, 1878; the number and amounts of those received, and the number and amounts of those acted upon during the fiscal year ending June 30, 1879, and those remaining on hand.

Statement of accounts and claims in the transportation division, Quartermaster-General's Office, for the fiscal year ending June 30, 1879.

	No.	Amount.	No.	Amount.
Number of accounts and claims suspended and awaiting action July 1, 1878.....	292	\$286, 112 83		
Accounts received during the fiscal year.....	1, 329	1, 682, 666 73		
Claims received during the fiscal year.....	178	393, 868 21		
Total number on hand and received.....			1, 799	\$2, 362, 647 77
Accounts referred for settlement in fiscal year.....	1, 290	1, 330, 736 29		
Claims referred for settlement in fiscal year.....	53	9, 773 90		
Accounts and claims rejected in fiscal year.....	143	422, 631 18		
Accounts and claims suspended in fiscal year.....	37	51, 445 84		
Total accounts and claims referred, rejected, and suspended.....			1, 523	1, 814, 587 21
Accounts awaiting action July 1, 1879.....	253	538, 028 61		
Claims awaiting action July 1, 1879.....	23	10, 031 95		
Total number and amount.....			276	548, 060 56

Statement of miscellaneous claims and accounts in the Quartermaster-General's Office for the fiscal year ending June 30, 1879.

	No.	Amount.	No.	Amount.
On hand July 1, 1878, which had previously been suspended or had received no decisive action—				
Claims.....	12, 450	\$6, 895, 873 79		
Accounts.....	328	51, 127 53		
Number of claims received during the fiscal year.....	12, 778	6, 947, 001 32		
Number of accounts received during the fiscal year.....	641	190, 698 12		
Number of accounts received during the fiscal year.....	1, 390	82, 774 81		
Total number on hand and received.....			14, 809	\$7, 220, 474 25
Claims approved.....	115	9, 577 04		
Reduction on claims approved.....		1, 170 70		
Claims referred to Third Auditor for action of accounting officers.....	181	25, 063 64		
Claims referred to other departments.....	162	124, 224 08		
Claims rejected.....	120	25, 264 82		
Accounts approved.....	863	39, 303 88		
Reduction on accounts approved.....		1, 050 65		
Accounts referred to other departments.....	445	30, 964 48		
Accounts rejected.....	19	682 59		
Total upon which final action has been taken.....			1, 905	257, 301 88
Remaining on hand July 1, 1879—				
Claims.....	12, 513	6, 901, 271 63		
Accounts.....	391	61, 900 74		
Total number and amount.....			12, 904	6, 963, 172 37

The branches of the office under my charge are composed as follows: Transportation branch, one chief clerk (Mr. T. W. Webster), six clerks, and two copyists; miscellaneous claims and water transportation branch, one chief clerk (Mr. H. D. Saxton), four clerks, and one copyist; regular supplies branch, one chief clerk (Mr. T. W. Sanner), five clerks; and indebted railroad branch, H. K. Cooper in charge.

All of the work pertaining to the branches specified during the fiscal year has been done well. The chiefs of branches and those under them have been diligent and attentive to their duties, and it gives me pleasure to bring this to the notice of the Quartermaster-General.

The following described papers accompany this report:

A.—Statement of all troops and property transported under the direc-

tion of the Quartermaster's Department during the fiscal year ending June 30, 1879.

B.—Statement showing principal movements of troops during the fiscal year, and average length of march or movement in each case.

C.—Correspondence regarding suspended land-grant railroad accounts, including decision of the Second Comptroller as to his interpretation of the law of March 3, 1879, relating thereto.

D.—Ex. Docs. No. 28, Forty-fifth Congress, third session, parts 1 and 2, containing views of the Quartermaster-General regarding land-grant railroads as they affect the Quartermaster's Department.

E.—Abstract of contracts made by officers of the Quartermaster's Department for wagon transportation during the fiscal year.

F.—Abstract of contracts made by officers of the Quartermaster's Department for water transportation during the fiscal year.

G.—Statement of vessels owned and purchased by the Quartermaster's Department during the fiscal year.

H.—Statement of vessels chartered, impressed, and employed in the Quartermaster's Department during the fiscal year.

I.—Statement of the indebtedness of railway companies for railway material, &c. purchased of the United States for the fiscal year.

K.—Specifications for travaux.

L.—Special report of transportation animals, vehicles, and men employed, &c. at San Antonio Depot and Post.

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

HENRY C. HODGES,

Deputy Quartermaster-General, U. S. A.

Brig. Gen. M. C. MEIGS,

Quartermaster General, U. S. A.

A.—Statement of all troops and property transported under the direction of the Quartermaster's Department during the fiscal year ending June 30, 1879.

Kind of transportation.	Passengers.			Beasts.				Stores.					
	Officers.	Men.	Total.	Horses.	Mules.	Cattle.	Total.	Subsistence.	Quartermasters'.	Ordnance.	Medical.	Miscellaneous.	Total.
Railroad	2,600	27,110	29,710	1,982	1,776	.....	3,758	<i>Pounds.</i> 29,468,184	<i>Pounds.</i> 70,546,074	<i>Pounds.</i> 4,247,332	<i>Pounds.</i> 1,455,760	<i>Pounds.</i> 10,013,975	<i>Pounds.</i> 115,731,325
Water	4,798	21,384	26,182	766	374	23	1,163	14,390,565	33,971,869	5,456,301	462,841	5,740,611	60,022,187
Wagon .....	.....	.....	.....	.....	.....	.....	.....	17,715,643	29,981,399	1,957,494	1,120,572	14,302,564	65,077,672
Stage	877	2,408	3,285	.....	.....	.....	.....	18,387	8,151	7,957	167	13,399	48,061
Grand total	8,275	50,902	59,177	2,746	2,150	23	4,921	61,592,779	134,507,493	11,669,084	3,039,340	30,070,549	240,879,245

Respectfully submitted.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. Army.

B.—Table showing principal movements of troops during fiscal year ending June 30, 1879, and average length of march or movement in each case.

Organization.	Company.	From—	To—	Stations before movement.	Stations after movement.	Distance.	Average length of march or movement in each case.
						<i>Miles.</i>	<i>Miles.</i>
First Cavalry	D	Department of California	Department of the Columbia	Presidio, Cal.	Fort Walla Walla, Wash.	1,005	1,005
Fourth Artillery	A	Department of the Columbia	Department of California	Fort Townsend, Wash.	Fort Point, Cal.	960	
	D	do	do	Fort Canby, Wash.	Presidio, Cal.	617	788
Eighth Infantry	A	Department of Arizona	do	Camp Verde, Ariz.	Benicia Barracks, Cal.	1,091	
	B	do	do	do	do	1,091	1,234
	C	do	do	Camp McDowell, Ariz.	Camp McDermit Nev.	1,321	
	D	do	do	Camp Thomas, Ariz.	Camp Bidwell, Cal.	1,518	
	E	do	do	Camp Apache, Ariz.	Camp Gaston, Cal.	1,532	
	G	do	do	do	Camp Halleck, Nev.	1,711	
	I	do	do	Camp Grant, Ariz.	San Diego, Cal.	569	
	K	do	do	Camp Lowell, Ariz.	Benicia Barracks, Cal.	1,041	
Tenth Infantry	Headq'rs	Department of Texas	Department of the East	Fort McKavett, Tex.	Fort Wayne, Mich.	1,901	1,935
	A	do	do	do	do	1,901	
	B	do	do	do	Fort Brady, Mich.	1,974	
	C	do	do	do	Fort Mackinac, Mich.	1,947	
	D	do	do	do	do	2,121	
	E	do	do	Fort McIntosh, Tex.	Fort Wayne, Mich.	1,434	
	F	do	do	Fort Griffin, Tex.	Fort Porter, N. Y.	2,156	
	G	do	do	Fort McKavett, Tex.	do	2,127	
	H	do	do	do	Fort Wayne, Mich.	1,872	
	I	do	do	do	Fort Brady, Mich.	1,974	
	K	do	do	Fort McKavett, Tex.	Fort Wayne, Mich.	1,872	
Twelfth Infantry	B	Department of California	Department of Arizona	Fort Clark, Tex.	Camp Verde, Ariz.	1,091	1,268
	C	do	do	Benicia Barracks, Cal.	Camp Apache, Ariz.	1,232	
	D	do	do	Angel Island, Cal.	do	1,232	
	E	do	do	do	Camp Supply, Ariz.	1,321	
	F	do	do	Camp Gaston, Cal.	Fort Whipple, Ariz.	1,024	
	G	do	do	Angel Island, Cal.	do	1,317	
	H	do	do	Camp Bidwell, Cal.	Camp McDowell, Ariz.	1,634	
	I	do	do	Camp Halleck, Nev.	Camp Thomas, Ariz.	1,471	
	J	do	do	Camp McDermit, Nev.	Camp Grant, Ariz.	1,471	
	K	do	do	Benicia Barracks, Cal.	Camp Verde, Ariz.	1,091	
	Headq'rs	Department of the South	Department of Dakota	Atlanta, Ga.	Fort Assinaboine	2,424	
Eighteenth Infantry.	A	do	do	do	do	2,424	2,424
	B	do	do	do	do	2,424	
	C	do	do	do	do	2,424	
	D	do	do	do	do	2,424	
	E	do	do	do	do	2,424	
	F	do	do	do	do	2,424	
	G	do	do	do	do	2,424	
	H	do	do	do	do	2,424	

QUARTERMASTER-GENERAL.

B.—Table showing principal movements of troops during fiscal year ending June 30, 1879, &c.—Continued.

Organization.	Company.	From—	To—	Stations before movement.	Stations after movement.	Distance.	Average length of march or movement in each case.
						<i>Miles.</i>	<i>Miles.</i>
Eighteenth Infantry.	I K	Department of the South . . .	Department of Dakota	Atlanta, Ga.	Fort Assinaboine.	2,424	}
		do	do	do	do	2,424	
Twenty-second In- fantry	Headq'rs A B C D E F G H I K	Department of the East	Department of Texas	Fort Porter, N. Y	Fort McKavett, Tex	2,156	}
		do	do	Fort Wayne, Mich	Fort Griffin, Tex	1,434	
		do	do	Fort Porter, N. Y	Fort McKavett, Tex	2,156	
		do	do	Fort Wayne, Mich	do	1,901	
		do	Department of the Missouri	Fort Mackinac, Mich	Fort Gibson, Idaho	1,019	
		do	do	do	do	1,019	
		do	do	Fort Brady, Mich	do	1,111	
		do	Department of Texas	Fort Porter, N. Y	Fort McKavett, Tex	2,156	
		do	do	Fort Wayne, Mich	do	1,901	
		do	do	Fort Gratiot, Mich	do	1,962	
		do	Department of the Missouri	Fort Brady, Mich	Fort Gibson, Idaho	1,111	

Respectfully submitted.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

C.—Correspondence showing the interpretation by the Second Comptroller of the Treasury of the provision of the sundry civil appropriation law of March 3, 1879, appropriating \$300,000 to pay suspended land-grant railroad accounts.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., March 28, 1879.

SIR: The appropriation of \$300,000 to pay suspended accounts of land-grant railroads is not clear and precise in its phraseology. If it applies to all land-grant railroads, it will be proper to endeavor to move forward all suspended land-grant railroad accounts towards settlement.

The number of such accounts lately filed in this office is great.

If the appropriation of \$300,000 is payable only to roads which have brought and carried to decision suits in the Supreme Court, then the accounts of such roads should have preference, and others can without injury await further appropriations.

I therefore request to be authoritatively instructed as to the following questions:

1. Is the following provision of the sundry civil appropriation law of March 3, 1879, "For the payment of arrears of Army transportation due such land-grant railroads as have not received aid in government bonds as compensation was withheld from under the acts of June sixteenth and twenty-second, eighteen hundred and seventy-four, and March third, eighteen hundred and seventy-five, to be adjusted by the proper accounting officers in accordance with the decision of the Supreme Court in cases decided under the said acts, to be paid as other Army transportation, but in no event shall more than fifty per cent. of the full amount allowed by the Quartermaster-General be paid until the decision of the Court of Claims be had in each case, three hundred thousand dollars, or so much thereof as may be necessary," applicable to all land-grant railroads having accounts for military transportation suspended under the acts of June 16 and 22, 1874, and March 3, 1875?

2. Is this appropriation applicable to payments only in cases, *i. e.*, in claims and suits, decided by the Supreme Court under the said acts?

3. Is it applicable to claims in which, under the rulings and decision of the Supreme Court, the Court of Claims has given judgment in favor of the railroad?

4. Or is it under the last clause of this provision of law applicable to claims in which the Court of Claims may have rendered decision since the 3d March, or may hereafter render decision?

Very respectfully, your obedient servant,

M. C. MEIGS,
Quartermaster-General, Bvt. Major-General, U. S. A.

The Hon. SECRETARY OF WAR.

Respectfully transmitted through the honorable the Secretary of the Treasury to the Second Comptroller, with request that an authoritative decision on the question herein stated be furnished for the guidance of officers of this department.

GEO. W. MCCRARY,
Secretary of War.

WAR DEPARTMENT,
April 7, 1879.

TREASURY DEPARTMENT,
April 12, 1879.

Respectfully referred to the honorable Second Comptroller for report.

H. F. FRENCH,
Assistant Secretary.

To the COMPTROLLER:

In the matter of the payment of \$300,000, appropriated by the sundry civil act of March 3, 1879, to certain land-grant railroad companies, referred by the Quartermaster-General, through the Secretary of War, April 12, 1879.

In the year 1850, and at various times since almost down to the present time, the Congress has granted portions of the public lands to certain railroad corporations, and to several of the States for the use of railroad corporations, chartered or to be chartered by said States, to aid in the construction of their roads.

These grants were made on certain conditions as to government transportation. The conditions vary in some cases, but in the cases of more than forty of said roads they are the same, or nearly so, and are substantially "that said railroad shall be and remain a public highway for the use of the Government of the United States, free from all toll or other charge upon the transportation of any property or troops of the United States."

This condition was held by the legislative and executive departments to require said companies to do the transportation of the government without charge; and this understanding was concurred in by said railroad companies generally. But some of the companies resisted, and in the cases of the Lake Superior and Mississippi Railroad Company *vs.* United States, and Atchison, Topeka and Santa Fé Railroad Company *vs.* United States, the Supreme Court decided at October term, 1876 (93 U. S., 442), that said provision "secured to the government the free use of the road, but does not entitle the government to have troops or property transported by the company free of charge for transporting the same"; that the companies are entitled to compensation for all transportation performed, subject to a fair deduction for the use of the roads.

Congress has passed three acts prohibiting payment to land-grant railroads, viz: Act of June 16, 1874 (18 Stats., 74), act of June 22, 1874 (18 Stats., 138), act of March 3, 1875 (18 Stats., 453).

The provisions of these several acts are substantially the same; the first two applying only to one year's appropriations, and the last being of general application. It provides "that no money shall hereafter be paid to any railroad company for the transportation of any property or troops of the United States over any railroad which in whole or in part was constructed by the aid of a grant of public land on condition that such railroad should be a public highway for the use of the Government of the United States, free from toll or other charge, or upon any other conditions for the use of such road for such transportation," but this act expressly authorized such roads to sue in the Court of Claims with appeal to the Supreme Court.

The two suits begun in accordance with this provision resulted in the decision aforesaid by the Supreme Court, by five of the justices against four, Justices Clifford, Miller, Swayne, and Davis dissenting.

Afterwards, the Congress, acquiescing in the Supreme Court's decision, made an appropriation of \$300,000 "for the payment of arrears of Army transportation due such land-grant railroads as have not received aid in government bonds as compensation was withheld from, under the acts of June 16 and 22, 1874, and March 3, 1875, to be adjusted by the proper accounting officers in accordance with the decision of the Supreme Court in cases decided under the said acts, to be paid as other Army transportation; but in no event shall more than fifty per cent. of the full amount allowed by the Quartermaster-General be paid until the decision of the Court of Claims be had in each case."

The language of this provision seems somewhat confused, as the Quartermaster-General says, which is probably attributable to the fact that it was several times amended and enlarged in its progress through Congress. As originally introduced, it was simply a provision to pay to the two companies in whose favor the Supreme Court had decided. But as the grants of land to many other roads were made upon the same condition as that in the two cases before the Supreme Court, the Congress extended the provision and appropriation so as to embrace all railroad companies that were in the same predicament, or at least in the same category; leaving to the accounting officers to determine to which companies the Supreme Court's decision is applicable. This will clearly appear from the proceedings, especially in the Senate, relating to the provision in question.

On careful examination of the original acts of Congress in the light of the decision of the Supreme Court referred to, I find that the following list embraces all the companies that will be entitled to receive payment out of the appropriation of \$300,000 in the act of March 3, 1879, in case payment has been withheld from them under the three acts referred to therein. This list corresponds with the list furnished by the Quartermaster-General, transmitted to Congress by letter of the Secretary of War, February 24, 1879, namely:

1. Alabama and Chattanooga. 11 Stats., 17.
2. Atchison, Topeka and Santa Fé. 12 Stats., 772.
3. Atlantic, Gulf and West India Transit (Florida). 11 Stats., 15.
4. Chicago, Burlington and Quincy (Iowa Division). 11 Stats., 9.
5. Chicago, Milwaukee and Saint Paul (Iowa and Minnesota Division); Milwaukee and Saint Paul (Iowa and Minnesota Division). 11 Stats., 195.
6. Chicago, Milwaukee and Saint Paul, Iowa and Dakota Division (Milwaukee and Saint Paul). 13 Stats., 72.
7. Chicago, Milwaukee and Saint Paul, La Cross and Madison and Portage Division (Milwaukee and Saint Paul, La Cross Division). 11 Stats., 20.
8. Chicago and Northwestern, Iowa Division (Cedar Rapids and Missouri River). 11 Stats., 9.
9. Chicago and Northwestern (Minnesota Division). 11 Stats., 9.
10. Chicago and Northwestern (Wisconsin Division), Chicago, Saint Paul and Fond du Lac. 11 Stats., 9.
11. Chicago and Northwestern (Peninsular Division). 11 Stats., 9.
12. Chicago, Rock Island and Pacific. 11 Stats., 9.

13. Flint and Pere Marquette. 11 Stats., 21.
14. Grand Rapids and Indiana. 11 Stats., 21.
15. Hannibal and Saint Joseph. 10 Stats., 8; 12 Stats., 614.
16. Illinois Central (Chicago Division). 9 Stats., 446.
17. Illinois Central (Northern Division). 9 Stats., 446.
18. Illinois Central (Iowa Division). 11 Stats., 9.
19. Jacksonville, Pensacola and Mobile. 11 Stats., 15.
20. Leavenworth, Lawrence and Galveston. 12 Stats., 772.
21. Louisville and Great Southern (South and North Alabama). 11 Stats., 17.
22. Marquette, Houghton and Ontonagon. 11 Stats., 21.
23. Missouri Pacific (Pacific Railroad of Missouri, Atlantic and Pacific). 10 Stats., 8.
24. Mobile and Girard. 11 Stats., 17.
25. Mobile and Montgomery. 11 Stats., 15.
26. Mobile and Ohio. 9 Stats., 446.
27. Morgan's Louisiana and Texas. 11 Stats., 18.
28. North Wisconsin.
29. Pensacola (Alabama and Florida, Pensacola and Louisiana). 11 Stats., 15.
30. Selma, Rome and Dalton. 11 Stats., 17.
31. Saint Louis and San Francisco (Atlantic and Pacific, Southwest Branch Pacific of Missouri). 10 Stats., 8.
32. Saint Paul and Duluth (Lake Superior and Mississippi). 13 Stats., 64.
33. Saint Paul and Pacific. 11 Stats., 195; 13 Stats., 526.
34. Saint Paul and Pacific (Saint Vincent Extension). 11 Stats., 195; 13 Stats., 526.
35. Saint Paul and Sioux City and Sioux City and Saint Paul. 11 Stats., 195.
36. Texas and Pacific (Southern Division), from Shreveport to Texas line. 16 Stats., 573.
37. Vicksburg and Meridian. 11 Stats., 30.
38. Vicksburg, Shreveport and Texas. 11 Stats., 18.
39. West Wisconsin. 11 Stats., 20.
40. Western Railroad of Minnesota (branch of Saint Paul and Pacific). 11 Stats., 195.
41. Wisconsin Central. 13 Stats., 66.

These, as I understand, are all the companies that can be entitled to the relief afforded by the provision referred to in the act of March 3, 1879, and of course only such of these as payment has been withheld from under the acts of 1874 and 1875. If any other company shall be found to be entitled it may be added hereafter. The case of the Northern Pacific Railroad Company will be considered separately.

I understand from you that it has been already determined that the sum appropriated is not to be distributed pro rata among the several companies entitled, but that the amount payable is to be paid in full to each company in the order of the filing of the claims. I suppose the filing either with the Quartermaster-General, the Third Auditor, or the Court of Claims, should be considered as proper filing under the rule.

The act provides that the payment shall not exceed 50 per cent. of the full amount allowed by the Quartermaster-General.

As the finding of the Quartermaster-General is always subject to be admitted by the accounting officers, the payment should be 50 per cent. of the amount allowed by the Quartermaster-General, as admitted by the accounting officers.

The foregoing general statements will perhaps sufficiently answer the inquiries of the Quartermaster-General, but I recommend that the following more distinct answers be made to his several questions, namely:

1. The provision quoted is applicable to all land-grant railroads (not subsidized) having accounts suspended; that is, having compensation withheld under the acts of 1874 and 1875.

2. The appropriation is applicable not only to the cases actually decided by the Supreme Court, but to the cases of all roads in the same category; that is, whose charters contain the same condition as to government transportation, and are therefore embraced in the decision.

3. The provision is applicable, or would be applicable, to claims in which, under the rulings and decisions of the Supreme Court, the Court of Claims has given judgment in favor of the railroad, though I do not know that there is yet such a case.

4. I do not understand that the last clause of the provision is intended to describe the roads or limit the number or character of the roads that are entitled to the relief afforded by the provisions, but merely to prohibit payment to any of said roads of more than 50 per cent. of the amount due until after said roads shall have gone to the Court of Claims and recovered judgment for some amount above the 50 per cent. paid.

A. THOMAS,
Chief of Division.

MAY 15, 1879.

21 W

TREASURY DEPARTMENT, SECOND COMPTROLLER'S OFFICE,
May 19, 1879.

Respectfully returned to the Secretary of War through the honorable Secretary of the Treasury.

1. I know at present of no sufficient ground for excluding from the operation of the within-recited provision of the act of March 3, 1879, any accounts for military transportation upon which action has been suspended under the acts of June 16 and 22, 1874, and March 3, 1875.

2. I think that payment out of this appropriation is not confined to the particular cases or claims that have been litigated in the Supreme Court.

3. I think this appropriation is applicable to claims in which, under the rulings and decisions of the Supreme Court, the Court of Claims has given judgment in favor of the railroads, subject, however, to a question whether other claimants of this appropriation may not be entitled to insist that such judgments shall be satisfied out of some other appropriation; and as to whether such right exists in favor of other claimants, I do not feel at liberty to express an opinion until the respective cases shall come before this office for decision.

4. I think the same question may arise in regard to payment of claims mentioned in the 4th interrogatory, and that unless excluded on that ground the \$300,000 is applicable to their payment.

Attention is invited to the inclosed opinion of Mr. Alfred Thomas, of this office.
 W. W. UPTON, *Comptroller.*

TREASURY DEPARTMENT,
May 20, 1879.

Respectfully forwarded to the honorable Secretary of War.
 JOHN SHERMAN, *Secretary.*

Respectfully returned to the Quartermaster-General, with the opinion of the honorable Second Comptroller, containing answers to the questions herein asked.

G. W. McCRARY,
Secretary of War.

WAR DEPARTMENT, *May 28, 1879.*

D.—*Executive Document No. 28, Forty-fifth Congress, third session, Parts 1 and 2, containing views of the Quartermaster-General regarding land-grant railroads as they affect the Quartermaster's Department.*

[Senate Ex. Doc. No. 28, Forty-fifth Congress, third session.]

Letter from the Secretary of War, communicating information in relation to payments to land-grant railroads for the transportation of property or troops of the United States, and recommending the passage of Senate bill 485, to repeal certain provisions of the act of June 16, 1874, and March 3, 1875, respectively, making appropriations for the support of the Army, with certain amendments.

JANUARY 16, 1879.—Ordered to lie on the table and be printed.

WAR DEPARTMENT,
Washington City, January 14, 1879.

The Secretary of War has the honor to transmit to the United States Senate a report of the Quartermaster-General, dated January 6, 1879, upon Senate bill No. 485, Forty-fifth Congress, second session, repealing the law prohibiting payments to land-grant railroads for the transportation of property or troops of the United States; also, another from the same officer, dated January 8, 1879, inclosing copies of letters of sundry railroad officers, showing difficulties in dealing with land-grant railroads.

The Quartermaster-General recommends the passage of the bill with certain amendments, and that the necessary legislation to define the rights of the railroad companies and of the government be had at the present session of Congress. These recommendations have my approval, and action in accordance therewith is requested.

GEO. W. McCRARY,
Secretary of War.

The PRESIDENT
of the United States Senate.

WAR DEPARTMENT,
 QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., January 6, 1879.

SIR: Having reference to Senate bill No. 485 and report No. 463, Forty-fifth Congress, second session, referred to the Quartermaster-General on the 5th ultimo for his views

“as to the legislation proposed,” I have the honor to recommend the passage of the bill; amended, however, as follows:

1. The title of the bill should be amended by inserting after the words “June sixteenth” the words *and twenty-second*.

2. In line 4, section 1, after the word “sixteenth” add *and twenty-second*.

3. In line 23, section 1, strike out the words “twenty-five” and insert in lieu thereof the words *thirty-three and one third*.

4. In line 24, section 1, strike out the word “accounts” and in lieu thereof insert the words *tariff rates*.

5. In line 30, section 1, strike out the words “twenty-two and one-half” and insert in lieu thereof the words *thirty-three and one-third*.

6. In line 31, section 1, strike out the word “accounts” and in lieu thereof insert the words *tariff rates*.

7. In lines 34, 35, and 36, section 1, strike out the words “to transport its said property and troops hereafter over land-grant railways free from toll or other charge” and in lieu thereof insert the following: *to the use hereafter of the land-grant railways, embraced in sections 1 and 2 of this act, as public highways, free from toll or other charge upon the transportation of any property or troops of the United States: Provided, That this act shall not be construed to authorize the reopening and readjustment of any account heretofore settled with any railroad company for services rendered prior to the passage of this act.*

8. Add sections 3 and 4, as follows:

SEC. 3. That all railroad companies whose railroads have been constructed, or that may hereafter be constructed, by aid of grants of public lands or bonds of the United States, their successors and assigns, shall keep said railroads in repair and use, and shall at all times transport troops, munitions of war, supplies, public stores, and property of the United States over said railroads whenever required to do so by any department of the government thereof, under such rules and regulations and upon such “transportation requests,” “orders,” and “bills of lading” as may be prescribed by the department requiring the transportation; that the government shall at all times have the preference in the use of said railroads for all the purposes aforesaid, and at the rates and on the conditions named in section one of this act; and in case any of said railroad companies, their successors or assigns, shall at any time fail or refuse to transport promptly the troops, munitions of war, supplies, public stores, and property aforesaid, when delivered to them for transportation by the proper officers or agents of the government, or to forward over their respective railroads any troops, munitions of war, supplies, public stores, and property aforesaid, when delivered to said railroads by any of their connecting lines, then the President of the United States shall take such measures as in his judgment may be necessary to protect the interests of the United States, secure the prompt transportation of the troops and property aforesaid, and to enforce compliance with the provisions of this act and of the several acts granting lands or bonds of the United States to aid in the construction of the railroads aforesaid in respect of the transportation of the troops and property of the United States, by taking possession of said company’s railroad, its equipment, and all things connected therewith, or such portion thereof as may be necessary to secure or perform the transportation required, and by causing such proceedings to be instituted against any such railroad company as shall refuse or fail to transport the troops, munitions of war, supplies, public stores, and property of the United States as aforesaid as may be necessary to enforce the penalty named in section four of this act: *Provided, That no railroad shall be taken possession of under the authority conferred by this act except on special orders from the President of the United States given at the time, and when the public interests imperatively require the prompt transportation of the troops or property.*

SEC. 4. That any railroad company embraced in the provisions of this act that shall refuse, neglect, delay, or fail to promptly transport the troops, munitions of war, supplies, public stores, and property of the United States as aforesaid shall, for each and every such refusal, neglect, delay, or failure, be liable for, and forfeit and pay to the United States, a sum not less than five hundred nor more than five thousand dollars, in the discretion of the court, to be recovered by civil action, in the name of the United States, in any Territorial, district, or circuit court of the United States, in any Territory, district, or circuit in which any portion of said railroad or its general offices may be situated; and in case of suit in any such Territory, district, or circuit, process may be served upon any agent or officer of said railroad company, its successors or assigns, found in the Territory, district, or circuit in which such suit may be brought, and such service shall be held by the court to be good and sufficient.

The necessity for these amendments is—

1. That the act of June 22, 1874, entitled “An act making appropriations to supply deficiencies in the appropriations for the service of the government for the fiscal years ending June thirtieth, eighteen hundred and seventy-three and eighteen hundred and seventy-four, and for other purposes,” forbids payment of any money appropriated by

that act to the land-grant railroads; hence the repeal of that act is required, as much as that of the acts of June 16, 1874, and March 3, 1875, so that payment may be made for transportation furnished in the fiscal years ending June 30, 1873, and 1874, as well as for subsequent years.

The title of the bill should, of course, be amended to correspond to the bill if that is modified.

2. All transportation performed for the United States by these land-grant railroad companies prior to the passage of the acts above referred to was performed with the knowledge, understanding, and assent of the railroad companies and the government that $33\frac{1}{4}$ per centum of tariff rates would be deducted in settlement for the service.

Instructions had been given by the War Department, from time to time, based upon its construction of the land-grant laws, to make such deduction in all cases in the settlement of accounts for military transportation; notice that such deductions would be made was given the railroad companies in the "bills of lading" and "transportation requests," or tickets issued for government transportation; the railroad companies accepted the bills of lading and requests or tickets, and performed service thereunder. In the suits of the Lake Superior and Mississippi Railroad Companies against the United States, carried to the Supreme Court and decided in favor of the companies, the Court of Claims held that the services sued for (from March 31, 1874, to April 1, 1875) "were performed at an agreed deduction of $33\frac{1}{4}$ per cent. from the ordinary tariff rates." It was admitted by the companies that they agreed to perform the service for $66\frac{3}{4}$ per cent. of their tariff charges, and that the government agreed to make payment accordingly. The agreement was nothing more than the instructions of the War Department governing payments for such service, the bills of lading, and requests issued for the transportation on which the transportation had been furnished, and the practice for upwards of thirteen years of making such deductions in paying for services rendered. Similar bills of lading and requests were issued to other railroad companies, were accepted by most of them, and the required transportation furnished. Since the passage of the act of June 16, 1874, all land-grant railroad companies furnishing transportation for the War Department have been notified in the bills of lading and requests that payment for the transportation was forbidden by law.

The suit of the Atchison, Topeka and Santa Fé Railroad Company embraced transportation furnished on bills of lading issued before and after the passage of the act of June 16, 1874. Notwithstanding this, the Court of Claims held that "the services were performed at an agreed deduction of $33\frac{1}{4}$ per cent. from the ordinary tariff rates." As other railroad companies furnished transportation under similar circumstances, and with like notice as to payment, it seems to me proper that the rule laid down by the Court of Claims should govern in the settlement of accounts of other land-grant railroad companies, *i. e.*, that the per centum of deduction from tariff rates should be uniform as to all railroads for services rendered prior to the passage of the bill under consideration. Each company fixes its own tariff rates. These rates vary, some being more and some less than other roads, according to the nature of the service to be performed and the cost of performing the service. It is believed that under these circumstances a uniform measure of deduction will work no injustice to any railroad company for all services heretofore rendered, and particularly in view of the frequent changes in the rates and the varying proportion of expenses to receipts of road.

3. To the third and fifth amendments it is suggested that the requirement that the percentage named shall be deducted from the accounts of the railroad companies is liable to the construction that the deduction must be made from the accounts as presented by the companies, without regard to the rates charged; in other words, that the companies may prepare their accounts for transportation at such rates as they think proper to charge, without reference to the rates charged the public for similar transportation, and if the deduction is made from the total sum charged the law is complied with. It is also suggested that the bill as drawn would require the deduction to be made in all cases in the final settlement of accounts, even though the government had by contract or special arrangement, as is frequently done, secured the transportation at less than the regular tariff rates with the land-grant deduction. It is believed that it is the intention of the bill to provide that the deduction shall be made from the ordinary rates at which transportation is furnished the public. The amendment will make it conform to that intention without furnishing opportunity to give the bill the construction suggested.

4. In fixing the measure of the value of the use to the government of a railroad as a highway, conflicting views are entertained by railroad men and theorists, varying from 12 to 78 per cent., according to their several modes of calculation and upon different railroads.

Without discussing these conflicting opinions, it is proper that the government should consider the matter with especial reference to the decision of the Supreme Court, *that the government, under the land-grant laws, is entitled only to the free use of the railroad, not to the equipment, rolling-stock, &c.; and that it is not entitled to have its troops and property transported by the companies over their respective railroads free of charge. That the com-*

panies are entitled to compensation for all transportation performed by them, respectively, of troops and property of the government, subject to a fair deduction for the use of their respective railroads. Viewing the matter from this standpoint, two questions arise: what compensation shall be awarded to the companies for their services, and how shall it be ascertained? The railroad companies are required to build the roads, keep them in order, and give the government the free use of them. The roads once built the additional expense to be incurred by the companies is: cost of repairs, renewals, taxes, and insurance on such structures as properly belong to the roadway, and a proper proportion of salaries. Assuming, as we have a right to do, that the government requires the exclusive use of the roads, we have the cost of maintenance of road, including renewals, taxes, insurance, salaries, and like expenses, as the measure of the yearly value of the use of the roads to the United States. Were there no other elements that entered into the consideration of the matter, the government could ask nothing further of the companies, and the companies could ask nothing from the government. But there is service to be performed; the government expects the companies to perform it, and the companies are entitled to be reimbursed for their outlay in doing the work, besides an additional sum as compensation or profits.

Tariffs of railroad companies are fixed with a view to covering all expenses incident to keeping in repair and operating the railroads, including interest on bonds, taxes, insurance, &c., and profits. Some of the items that go to make up the grand total of all expenses or outlay it would be improper to include in fixing the charges for government transportation, such, for instance, as interest on bonds issued for construction, and renewal of road; purchase of equipment worn out and not now in use; dividends on stock expended in construction and reconstruction of road, and purchase of equipment not in use; cost of maintenance, and renewal of roadway; taxes and insurance on roadway and structures properly belonging to the realty; salaries incident to and chargeable to maintenance of way, and profits on use of the roads; for the companies are required to provide (build) the roads, keep them in repair, and give the government the use of them "free from toll or other charge," and as money expended in the purchase of equipment that has become unserviceable forms no part of the actual cost of transportation, the government should bear no part of the cost or expense incident to its purchase. Eliminating these and like items from the gross earnings of the roads, we have a sum which may be taken as fair and reasonable compensation for the services rendered, and the relation that the sum so ascertained bears to the gross earnings will represent the proportion or percentage of tariff charges to be paid for government transportation. This system is believed to be as nearly correct as any that can be devised, in view of the fact that but a small part of all the business done by the roads is government business, and that tariffs are framed to cover transportation of all kinds and from all sources, outlay of all kinds, and profits.

Another method, one perhaps as equitable, and that would probably give nearly like results, would be to fix the percentage on the basis or plan of reimbursing the companies the cost of doing the work, *i. e.*, the transportation expenses, and give them, in addition, a proper share of the profits, apportioned on the basis of the ratio of the cost of maintenance of way to transportation expenses, the government retaining the proportion of the gross earnings applicable to expenses of maintenance of way and profits thereon. For instance, railway companies are formed for the purpose of building and maintaining railways, and of transporting passengers and freight; their charges on transportation are imposed with a view to cover the expenses of both these operations, and a reasonable profit thereon; the profits are profits on the operations of the companies in their twofold character—owners of railways and public carriers of persons and freight—their expenses are apportioned to expenses of maintenance of way and transportation expenses, and if properly apportioned should cover and include all the expenses incident to these operations. In a table compiled by the Auditor of Railway Accounts from Poor's Manual for 1878, the total expenses of all the railroads in the United States for maintenance of roads and transportation expenses are stated at \$302,290,323, apportioned as follows: to maintenance of way, \$90,713,372; to transportation expenses, \$211,576,951. The total earnings for the same period were \$473,517,466; actual profit on the business of the companies, \$171,227,143, or 56.64 per cent. *on the money expended*. It may fairly be assumed that the companies expected and derived as much profit, proportionately, from the use of the road as from actual transportation, and that the percentage of profit on one was equal to the percentage of profit on the other. In this view of the case the profits on the *money expended* in maintenance of roads were 56.64 per cent. on an outlay of \$90,713,372; equal to \$51,382,775, and *on money expended* for transportation purposes 56.64 per cent. on an outlay of \$211,576,951; equal to \$119,843,532. The earnings and profits from use of roads were therefore \$90,713,372 plus \$51,382,775, or \$142,096,147, a sum to which the government was not called upon or expected to contribute in any manner whatever, while the earnings and profits from transportation were \$211,576,951 plus \$119,843,532, or \$331,420,483, which the government did contribute to according to its proportion of the transportation done by the companies; this is equivalent to paying the companies

for doing the work 69.8 per cent. of their tariff charges, and retaining 30.2 per cent. for the right to use the roads.

The same rule applied to the nine land-grant roads named in the report, gives 28.41 per cent. to be retained by the government for its right to use the roads, and if applied to all the land-grant roads, would, I think, bring the percentage nearly if not quite up to $33\frac{1}{2}$; for the nine roads named are among the most prosperous, the best, and the most successfully managed of all the railroads in the country.

I am clearly of the opinion that the plan urged by counsel for the land-grant railroads, and adopted by the committee, of ascertaining the percentage for deduction from tariff rates, by dividing the expenses of maintenance of way by the gross earnings, is not the true and just basis on which to ascertain the value of the government's right to use the railroads as public highways, or the percentage of deduction from tariff rates to be made in paying for government transportation, for the reason that items properly chargeable to cost of maintenance of way are not so charged by the railroad companies, while items which should be omitted from all computations to ascertain the proper deduction, and to which the government should not contribute (such as profits on use of roadway, taxes on real estate, salaries properly chargeable to maintenance of way, &c.), are by these companies included in the expenses paid from gross earnings of the roads, and thus come into the computation.

I may here remark that no plan can be devised in advance that will give with mathematical exactness the true percentage to be retained for government transportation, for the reason that the profits on the business actually done, the ratio of expenses of maintenance of way to total expenses, and of profits from use of road to total profits, cannot be ascertained until the results of the year's business are definitely and fully known. In the mean time the companies desire and expect prompt payment of whatever sums they are entitled to for government transportation, which they cannot receive if the percentage of tariff rates to be paid is to be determined by the actual final results of each year's operations. If the percentage is to be determined by the expenses and profits of train movement, to be shown by each from time to time as services are rendered, delay in making payment would be unavoidable; the percentage to be paid would be constantly varying, and dissatisfaction and confusion interminable and inextricable would ensue. It is therefore necessary to fix the rate of deduction in advance of the performance of the service, and that rate should be just and fair to all concerned so far as practicable.

Originally the deduction of $33\frac{1}{2}$ per cent. from the rates paid for government transportation was fixed and agreed to after full conference between the War Department and the president of the Illinois Central Railroad Company; about two years ago that company again expressed a willingness to accept payment for government transportation, subject to the same deduction. For a number of years, to wit, to the date of the passage of the act of June 16, 1874, the land-grant railroad companies generally accepted that as a fair deduction to be made, and have not to this day intimated to this office a dissatisfaction with the percentage so fixed, and in the suits of the Lake Superior and Mississippi, and Atchison, Topeka and Santa Fé Railroad Companies against the United States, heretofore referred to, those companies admitted the reasonableness of the deduction; therefore, believing as I do that the deduction of $33\frac{1}{2}$ per cent. from tariff rates is a fair and reasonable deduction, and as near the correct percentage of deduction as can be ascertained in advance of the ascertained results of the operations of any given year, I recommend that the bill be amended accordingly, and the deduction of $33\frac{1}{2}$ per cent. heretofore made be adhered to.

6. The amendment in lines 34, 35, and 36 is made so that the bill may conform more nearly to the conditions on which the grants were made to these roads, and that the right of the government to use these roads as public highways may not be confounded with the right reserved in other grants to have the troops and property of the United States transported by the companies free of cost or charge to the United States. See the language of the laws making grants to the California and Oregon; Cairo and Fulton, now Saint Louis, Iron Mountain and Southern; Hastings and Dakota; Jackson, Lansing and Saginaw; Little Rock and Fort Smith; Memphis and Little Rock; Missouri, Kansas and Texas; Missouri River, Fort Scott and Gulf; Oregon and California; and the Southern Minnesota Railroads (U. S. Stat., vol. 14, p. 239; 10, p. 155; 9, p. 466; 11, p. 21; 10, p. 155; 14, p. 338; 13, p. 339; 14, p. 236; 14, p. 239, and 14, p. 87), in contradistinction to the grants to the roads to be affected by the bill, which applies only to forty-one out of sixty-six land-grant railroads. The bill should, therefore, be so drawn that it cannot, by any possible construction, be made to include railroads not intended to be included. The proviso is added so that it may not be claimed that the bill sanctions the reopening of any settled accounts.

7. I submit the amendments covered by the additional sections 3 and 4, after careful consideration, and an experience of seventeen years' dealings with land-grant railroad companies. A number of cases have arisen where land-grant railroad companies have refused to transport the troops and property of the United States, and for no other reason than that the Quartermaster's Department obeyed the laws in re-

lation to paying for the services rendered, thereby compelling the department to seek other means of conveyance, at greater cost to the government, and depriving the Army for a time of much-needed supplies and re-enforcements. A case is now under consideration in which stores shipped from Augusta, Ga., to Key West, a distance of 687 miles, have been stopped at Fernandina, Fla., because the Atlantic, Gulf, and West India Transit Railroad Company (a land-grant railroad company) has refused to forward them over its road to Cedar Keys, the nearest point in communication with Key West, thereby compelling the department to send the stores from Fernandina back to Savannah, thence to New Orleans, and thence by water to Key West, a distance of 1,443 miles; making the total distance which the stores were carried 1,675 miles, instead of 678 miles by the direct route.

Sixty-six railroad companies have received grants of public lands and bonds of the United States, worth many millions of dollars, coupled with conditions of one kind or another in respect to the transportation of troops and property of the United States, of little value to the United States as compared with the enormous gifts of the companies, and yet there are no provisions of law by which any one of the land-grant or bonded roads can be compelled, if unwilling, to transport troops, munitions of war, or supplies for the Army when required so to do (see opinion of the Attorney-General in the case of Morgan's Louisiana and Texas Railroad), nor any penalties prescribed that can be imposed on the companies for their refusal to transport troops and property. The only remedy the government now has is to bring suit for damages, if any are sustained by the company's refusal to furnish the required transportation. This course does not, however, move the troops or stores. The very existence of an army may be imperiled by the action of a railroad company, and the government is powerless unless it resorts to an illegal and arbitrary act. These land-grant and bonded railroads extend into or through nearly all of the Western and Southwestern States and Territories; the government frequently requires their use in transporting troops from one section of the country to another, and in supplying the troops at the various military posts and stations with subsistence, clothing, and munitions of war.

Movements of troops, munitions of war, and supplies are always matters of necessity, oftentimes requiring promptness and dispatch (to prevent or suppress Indian outrages, quell riots, and to enforce the laws), which Congress has the right to provide for and regulate. The government is in many cases dependent upon these land-grant and bonded railroads for transportation; it has the right at all times to the use of the roads, free from toll or other charge, and should not be left to the mercy of the officers and agents in charge and control of them to furnish the required transportation or not at their pleasure. Some means should be provided by which it can, in cases of emergency, save itself from irreparable injury by hostile action of officers and agents of the roads when the prompt movement of troops and supplies is rendered necessary by military operations. Suits for damages are not a remedy. They punish the guilty, but do not move the troops and stores. Severe penalties should, however, be provided, to be enforced through the proper courts of the United States against the railroad companies, their officers and agents, for each and every failure to transport the troops and property of the United States, when required to do so, and against each and every person who shall hinder or delay such transportation.

The Quartermaster's Department provides transportation for troops, persons in the military service, and property in all parts of the country, and from one extreme portion of it to the other. The officers charged with that special duty, provide transportation by rail, water, and stage, over routes remote from their stations, where it is not possible to conform to the established local regulations of the companies in the purchase of tickets, and use of the bills of lading provided for general use. They are also required to provide transportation over routes covering, 1st, roads to which full tariff rates must be paid; 2d, roads to which no payment can be made (the Pacific Railroads, and one class of land-grant railroads); and, 3d, roads which heretofore received only part payment for the transportation, and which the bill under consideration proposes shall hereafter receive only part payment.

Regulations of the Treasury Department made in pursuance of law require proper vouchers and receipts to accompany all accounts for the disbursement of public moneys and all transfers of public property; it has heretofore been found necessary to provide forms for government "transportation requests" or tickets and bills of lading, to be used by officers in all cases when transportation of persons and property is required. It is indispensable to the public service that these "requests" or tickets and bills of lading be accepted by railroad companies and transportation furnished thereon. Most of the companies throughout the country readily receive them, and express a willingness to continue to receive them; a few land-grant railroad companies, however, decline to receive them, thereby compelling the government to refrain from using their roads, notwithstanding they have received many thousand acres of land on condition that the government should have the use of the roads free from toll or other charge.

In order that this right may be secured to the government, I suggest the provision

requiring the companies at all times to receive the requests and bills of lading issued by the proper officers of the government, and to furnish the required transportation thereon. If the companies persist in their refusal to receive such requests and bills of lading, the government will be deprived of the use of the roads, and, consequently, of any benefit from the grants; and will be compelled to secure the transportation from such non-land-grant railroads as will receive them.

In this connection, I invite attention to Ex. Doc. No. 94, Forty-third Congress, second session, in relation to the refusal of Morgan's Louisiana and Texas Railroad to transport troops and property of the United States, copy inclosed.

I return herewith the papers referred to this office, and recommend that the necessary legislation to define the rights of the railroad companies and of the government in the use of these railroads be had at the present session of Congress. Such legislation will remove many of the embarrassments this department now has to contend with in securing transportation of the troops and property of the United States.

Very respectfully, your obedient servant,

M. C. MEIGS,
Quartermaster-General, Brevet Major-General, U. S. A.

The Hon. SECRETARY OF WAR.

—
WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., January 8, 1879.

SIR: In connection with the report of this office, dated January 6, 1879, regarding proposed legislation affecting the relations of land-grant railroad companies and the War Department, I inclose copies of sundry letters recently received at this office from railroad officers whose roads are connected and have dealings with land-grant railroads, showing some of the difficulties under which the department now labors in attempting to secure what is freely accorded to the traveling public, viz, through rates for through travel in lieu of the higher *local* rates charged by each road forming a through connection; that is to say, where land-grant railroads are concerned in furnishing through transportation over several railroads, some of these land-grant roads refuse to settle with their connecting roads on government business excepting on payment of full charges without deduction required by law on account of land-grant. This forces upon the War Department the inconveniences and disadvantages and extra cost consequent upon dealing separately with every land-grant railroad which forms a portion of a through line.

I think these letters should be at hand in Congress when the subject referred to is considered, and I respectfully recommend their transmittal to Congress for that purpose.

Very respectfully, your obedient servant,

M. C. MEIGS,
Quartermaster-General, Brevet Major-General, U. S. A.

The Hon. SECRETARY OF WAR.

—
OFFICE PRESIDENT
WESTERN AND ATLANTIC RAILROAD COMPANY,
Atlanta, Ga., December 9, 1878.

DEAR SIR: I have received yours of the 23d November in reference to the sale of through tickets to officers and men of the United States Army, traveling under direction of your department, and in reply I have to state that the Western and Atlantic Railroad Company will with pleasure give to the officers or men belonging to the United States Army through rates over our road at any time when requested so to do. But we meet with this practical difficulty in carrying out your wish: Troops are being shipped from here to the far West, and pass over land-grant roads, or roads which still owe the government on rolling-stock furnished after the war; and we have been notified heretofore by such companies that they would not recognize our through tickets sold to Army officers over their roads, and take the government for payment, but would hold us responsible for their part of the ticket in our monthly cash settlements. In case of large forces being sent West, to California, for instance, the whole amount that we would have to settle with connecting roads, and even with land-grant roads, would be a heavy one; and the interest on that during the period between the transportation of the troops and the settlement with your department would probably be worth as much as our proportion of the ticket, as our road is a short one.

If you can effect any arrangement with the land-grant and other roads West that owe the government, by which they will recognize the through tickets issued by us, and look to the government for their proportion on the amount of each ticket, we will with great pleasure carry out your wish. If not, we will at any time sell, to the offi-

cers and troops going from here to Dalton or Chattanooga, tickets at what would be our proportion of the through rate, and they could there purchase through tickets if they desired to do so.

Very respectfully, your obedient servant,

JOSEPH E. BROWN, *President.*

M. C. MEIGS,
Quartermaster-General, Washington, D. C.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

Q. M. G. O., *January 7, 1879.*

BURLINGTON, CEDAR RAPIDS AND NORTHERN
RAILWAY (the Iowa route),
GENERAL PASSENGER AND TICKET OFFICE,
Cedar Rapids, Iowa, December 18, 1878.

DEAR SIR: Since my first letter to you in regard to our accepting transportation requests issued from your department, I have had some conversation with the officers of the land-grant roads, who say they will expect us to pay them their regular division on a through ticket. The subject was brought up at the convention of general passenger agents held in Chicago and laid over until the general convention to be held in March, when final action will be taken upon it. We would, therefore, under these circumstances ask that your orders for through tickets be confined to points between Burlington and Minneapolis, which we shall be glad to honor. We would honor orders for tickets over land-grant roads provided they did not require us to pay regular proportions, which, of course, we should lose entirely.

Yours, truly,

B. F. MILLS,
Acting General Passenger and Ticket Agent.

HENRY C. HODGES,
Deputy Quartermaster, Washington, D. C.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

Q. M. G. O., *January 7, 1879.*

KANSAS CITY, *January 3, 1879.*

SIR: The President of the Kansas City, Saint Joseph and Council Bluffs Railroad Company (N. Thayer, esq., Boston), has forwarded me your circular-letter of November 23, asking that all ticket-agents be instructed to receive transportation requests from the quartermasters for through transportation, &c.

In reply, I will say that if the requisitions were issued to the company selling the ticket, to be paid for in cash at regular ticket rates, regardless of land-grant questions, we would agree to accept such and issue tickets accordingly; but it will be impracticable to issue tickets on transportation requests when part of the route is over one or more land-grant roads.

The above also applies to the Atchison, Nebraska, Missouri River, Fort Scott and Gulf, and Leavenworth, Lawrence and Galveston Railroads.

Very respectfully,

GEO. H. NETTLETON,
General Manager.

General M. C. MEIGS,
Quartermaster-General U. S. A., Washington, D. C.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., *January 7, 1879.*

WESTERN RAILROAD OF ALABAMA,
OFFICE OF GENERAL FREIGHT AND TICKET AGENT,
Montgomery, Ala., December 9, 1878.

DEAR SIR: Replying to your circular-letter November 23, 1878, to our president, instructions will be issued to our ticket-agents at Selma, Montgomery, West Point, and Columbus to receive the transportation orders of the Quartermaster's Department and issue on them through tickets, if on sale at their station-office, to such points as given

on request, settlement to be made as heretofore on local requests; provided that if in any through coupon-ticket on such transportation request there should be a coupon over a land-grant road, the Quartermaster's Department will pay to this road the full through rate of such ticket or tickets so furnished from point of starting to destination, and look to the land-grant road for the proportion so charged by them.

Our reports are made monthly, and settlements between roads are much quicker than through the departments of state, and on roads will require us to pay balances promptly, and hold us for any coupon over their road bearing the stamps of this road.

Very respectfully,

S. D. HUBBARD, JR.

M. C. MEIGS,

Quartermaster-General U. S. A., Washington, D. C.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., *January 7, 1879.*

[John Screven, Samuel A. Strang, receivers Atlantic and Gulf Railroad.]

SAVANNAH, GA., *December 9, 1878.*

GENERAL: Replying to your communication of 23d instant, addressed to Col. John Screven, receiver, in regard to issuing through tickets upon the requests of the Quartermaster's Department, would state that this road issues but comparatively few through tickets except to Florida points, and that we have received notice from the Jacksonville, Pensacola and Mobile Railroad and the Florida Central Railroad, both being land-grant roads, that they will not accept the certificates of service issued by the Quartermaster's Department for tickets sold over their lines.

This being the case, we cannot accede to the request of your circular so far as points in Florida are concerned.

Respectfully, yours,

JAMES L. TAYLOR,
General Freight and Passenger Agent.

Bvt. Maj. Gen. M. C. MEIGS,

Quartermaster-General, U. S. A., Washington, D. C.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., *January 7, 1879.*

INTERNATIONAL AND GREAT NORTHERN RAILROAD,
Receiver's Office, Palestine, Tex., December 23, 1878.

GENERAL: Your favor of November 23, 1878, to Hon. Samuel Sloan, of New York, relative to the mode of issuing transportation on account of the government, is referred to the undersigned. I can see no objection to the principle you suggest, but there will be considerable difficulty in carrying it out, from the want of unanimity among the various "land-grant" roads as to their rights in each particular case. I understand some of the lines do as you suggest; but it would be necessary for our "land-grant" connections to acquiesce in the plan before this line would be able to comply. If your suggestions could be brought before some general meeting of the general passenger agents, I believe the plan would be uniformly adopted without any trouble.

Very respectfully,

R. S. HAYES,
Receiver.

Bvt. Maj. Gen. M. C. MEIGS,

Quartermaster-General, U. S. A., Washington, D. C.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., *January 7, 1879.*

ATCHISON, TOPEKA AND SANTA FÉ RAILROAD COMPANY,
OFFICE VICE-PRESIDENT AND GENERAL MANAGER,
Topeka, Kans., December 21, 1878.

DEAR SIR: Your circular of the 23d ultimo, addressed to Mr. Nickerson, president of this company, has been referred to me.

While I should be very willing to relieve your department of any unnecessary expense or labor attending requests for local or through transportation over our lines, I respectfully submit that it is hardly just to call upon us to advance money for transportation of soldiers or officers traveling upon public business by furnishing them with coupon tickets running over other roads than our own. Upon every ticket so furnished we have to pay the roads over which they are issued the full rate; and the profit which we, as a land-grant road, receive from this transportation is not sufficient to justify the advance of the necessary money for coupon tickets.

Yours, truly,
WILLIAM B. STRONG.

M. C. MEIGS, Esq.,
*Quartermaster-General and Bvt. Maj. Gen., U. S. A.,
Washington, D. C.*

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., *January 7, 1879.*

CHICAGO AND NORTHWESTERN RAILWAY,
GENERAL TICKET DEPARTMENT,
Chicago, December 27, 1878.

DEAR SIR: I have your circular-letter of the 23d ultimo, addressed to our president, Mr. Keep, which has been referred to me for reply.

The plan you propose of agents issuing through tickets to the destination designated, on government orders for transportation, is one that has been practiced on this line to a certain extent for some time past, but only from particular localities and to points in a particular Territory, where we knew no land-grant roads intervened, or where we had obtained the direct consent of connecting lines to the practice.

Upon the receipt of your circular, proposing the general adoption of this system, I communicated with a number of our most interested connections to ascertain whether they or any of them would object to our issuing tickets in this manner, and making settlement as you suggest. In reply I received several very decided objections from different lines, which precludes the possibility on our part of agreeing to issue tickets to all points on orders, as you request. The officers of this road, however, are desirous of accommodating government officials whenever possible, and in no case wish to present any unnecessary obstacles to changes contemplated for the purpose of facilitating department business. From this company, therefore, you may expect co-operation as far as our own line is concerned, and we shall be pleased to accept tickets from all our connections issued upon the basis of your circular and make settlement in the manner proposed. Also, we shall be glad to issue through tickets or through requisitions at any stations where we have the tickets called for, on sale, to any point not reached by means of lines objecting to the plan you propose.

As a word of caution to prevent the recurrence of mistakes in issuing orders on us, I would say that we have through tickets on sale at only a limited number of our most important stations. Particular care should, therefore, be taken that none are drawn on agents not so supplied.

Very truly, yours,

W. A. THRALL,
General Ticket Agent.

Maj. Gen. M. C. MEIGS,
Quartermaster-General, U. S. A.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., *January 7, 1879.*

CHICAGO, MILWAUKEE AND SAINT PAUL RAILWAY,
GENERAL'S MANAGER'S OFFICE,
Milwaukee, January 2, 1879.

DEAR SIR: Your circular-letter of November 23, addressed to our president, Hon. Alex. Mitchell, was referred to me, and, after careful inquiry, I desire to state in reply that it will not be convenient for our company to fully comply with your request.

We have heretofore made and shall hereafter be glad at all times to make such arrangements for taking squads or companies between any points; but the issuing of tickets on quartermaster's requisitions from our various stations to all parts of the United States will be attended with so many difficulties that we cannot undertake to do it.

Whenever we issue a ticket over connecting lines, it is customary that said lines shall make a draft upon us at the close of each month for the amount due them as their proportion. You will readily see, from the fact that our agents have no particular knowledge as to the land-grant roads over which such tickets were sold, that we cau-

not assume to settle for such tickets at the close of each month, and rely upon receiving our pay from the government; because we should, in many cases, advance money to land-grant roads without knowing that they were such, and as the government would not pay us for such advances, except in land-grant certificates, we should be in constant trouble.

Under these circumstances we cannot consent to the general sale of tickets from the various stations on our lines to such points as may be named in the requisitions; but, as I before remarked, we have a good understanding which will enable us at all times to move troops from New York, Boston, Baltimore, Philadelphia, Cincinnati, Saint Louis, &c., to any posts in Minnesota, Dakota, or Montana which can be reached by our line.

Respectfully, yours,

JNO. C. GAULT,
Assistant General Manager.

Maj. Gen. M. C. MEIGS,
Quartermaster-General, U. S. A.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., January 7, 1879.

THE NEW ORLEANS AND MOBILE RAILROAD,
New Orleans, December 9, 1878.

GENERAL: Your letter dated November 23, 1878, addressed to E. D. Morgan, trustee New Orleans and Mobile Railroad Company, has been handed me for reply.

The immediate connections of this road are all land-grant roads, involving complication on every ticket sold on government orders. Our connections expect, every thirty days, a report of all tickets sold and payment therefor. Without their consent we could not withhold payment on any coupon of our issue.

Your suggestion would, perhaps, lessen clerical labor in the Quartermaster's Department, but would certainly transfer the same amount to the railroad offices. We would gladly aid you in facilitating business, but cannot see clearly how your plan can be made work on land-grant lines. Any suggestion will receive respectful consideration.

Yours, very respectfully,

S. E. CAREY,
General Passenger and Ticket Agent.

M. C. MEIGS,
Quartermaster-General, U. S. A.

A true copy.

HENRY C. HODGES,
Deputy Quartermaster-General.

Q. M. G. O., January 7, 1879.

Senate Ex. Doc. 28, Part 2, Forty-fifth Congress, third session.

Letter from the Secretary of War, transmitting further information in relation to payments to land-grant railroads for the transportation of property or troops of the United States, &c.

FEBRUARY 25, 1879.—Ordered to lie on the table and be printed.

WAR DEPARTMENT,
Washington City, February 24, 1879.

The Secretary of War has the honor to transmit to the United States Senate, in connection with his letter of the 14th of January last to that body relative to Senate bill No. 485, repealing the law prohibiting payments to land-grant railroads for the transportation of property or troops of the United States, a communication from the Quartermaster-General, of the 18th instant, intended to correct a misapprehension which is understood to exist in regard to the scope of said bill.

GEO. W. McCRARY,
Secretary of War.

The PRESIDENT
Of the United States Senate.

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., February 18, 1879.

SIR: In reply to the letter from Mr. S. R. Hamill of this date, referring to the letter from the War Department of the 14th ultimo, transmitting to the United States Senate the letter from this office of the 6th ultimo, suggesting certain amendments to Senate bill No. 485, providing for paying certain land-grant railroads for the trans-

portation of troops and property of the United States, in which letter Mr. Hamill requests you, if deemed consistent with the interests of the War Department, to make such further communication to the Senate as will correct a misapprehension which exists as to the scope of the bill, in this, that it is thought to authorize payment to the Pacific railroads for government transportation contrary to express legislation and outside of the decision of the Supreme Court in the cases of the Atchison, Topeka and Santa Fé, and Lake Superior and Mississippi Railroads, I have the honor to submit, for further information upon this subject, the following as a summary of legislation heretofore had in respect of the transportation of the troops and property of the United States over the land-grant railroads and payment for such transportation, to the end that the matter may be fully understood, and that such legislation may be had during the present session of Congress as will enable this department to secure the prompt transportation of the troops and property of the United States over these railroads, and to make such payment for the transportation as is justly and equitably their due under the decision above referred to.

There are three classes of these land-grant railroads, to wit:

1st. Those railroads to which grants of lands were made on condition that "the railroads should be and remain public highways for the use of the Government of the United States, free from toll or other charge upon the transportation of the property or troops of the United States."

This class embraces the following-named railroads, as now controlled and operated :

	Name of company.	From—	To—	Miles.
1	Alabama and Chattanooga...	Wauhatchie, Tenn.....	State line, Mississippi and Alabama.	270½
2	Atchison, Topeka and Santa Fé.	Atchison, Kans.....	The State line.....	470.58
3	Atlantic, Gulf and West India Transit.	Fernandina, Fla.....	Cedar Keys, Fla.....	155
4	Chicago, Burlington and Quincy (Iowa division), Iowa.	Burlington, Iowa.....	Missouri River.....	279
5	Chicago, Milwaukee and Saint Paul (Iowa and Minnesota division), Minnesota.	Saint Paul, via Mendota, Faribault, and Austin, and Minneapolis, via Mendota, Faribault, and Austin.	Lyle, Minn.....	113
6	Chicago, Milwaukee and Saint Paul (Iowa and Dakota division), Iowa.	Calmar, Iowa.....	Lyle, Minn.....	116
7	Chicago, Milwaukee and Saint Paul (La Crosse and Portage divisions), Wisconsin.	Portage City, Wis.....	Junction with Saint Paul and Sioux City Railroad.	.....
8	Chicago and Northwestern (Iowa division), Iowa.	Portage City, Wis.....	Tomah, Wis.....	62
9	Chicago and Northwestern (Minnesota division), Minnesota.	Cedar Rapids, Iowa.....	Missouri River.....	278
10	Chicago and Northwestern (Wisconsin division), Wisconsin.	Branch, Lyons.....	Clinton, Iowa.....	3
11	Chicago and Northwestern (Peninsular division), Michigan.	Winona, Minn.....	A point on the Big Sioux River 10.48 miles east of Lake Kempeska Station.	323.52
12	Chicago and Northwestern (Wisconsin division), Wisconsin.	Fond du Lac, Wis.....	Wisconsin State line.....	117
13	Chicago and Northwestern (Peninsular division), Michigan.	Wisconsin State line, via Escanaba.	Marquette, Mich.....	137
14	Chicago, Rock Island and Pacific, Iowa.	Davenport, Iowa.....	Missouri River.....	310
15	Flint and Pere Marquette, Michigan.	Flint, Mich.....	Lake Michigan.....	171
16	Grand Rapids and Indiana, Indiana and Michigan.	Fort Wayne, Ind.....	Petoskey, on Traverse Bay, Mich.	333
17	Hannibal and Saint Joseph, Missouri.	Hannibal, Mo.....	Saint Joseph, Mo.....	206
18	Illinois Central (Chicago division), Illinois.*	Cairo, Ill.....	Chicago, Ill.....	365
19	Illinois Central (Northern division), Illinois.*	Cairo, Ill.....	Dunleith, Ill.....	456
20	Illinois Central (Iowa division), Iowa.	Dubuque, Iowa.....	Sioux City, Iowa.....	327
21	Jacksonville, Pensacola and Mobile, Florida.	Jacksonville, Fla.....	Chattahoochie River.....	209
22	Leavenworth, Lawrence and Galveston, Kansas.	Lawrence, Kans.....	South line of the State.....	141
23	Louisville and Great Southern, Alabama.	Decatur, Ala.....	Montgomery, Ala.....	182
24	Marquette, Houghton and Ontonagon, Michigan.	Marquette, Mich.....	Ontonagon, Mich.....	.....
25	Missouri Pacific, Missouri.	Saint Louis, Mo.....	Pacific, Mo.....	37
26	Mobile and Girard, Alabama.	Columbus, Ala.....	Troy, Ala.....	84
27	Mobile and Montgomery, Alabama.	Montgomery, Ala.....	Pollard, Ala.....	114

*Branches at Centralia.

	Name of company.	From—	To—	Miles.
26	Mobile and Ohio, Alabama, Mississippi, Tennessee and Kentucky.	Mobile, Ala.....	Columbus, Ky.....	472
27	Morgan's Louisiana' and Texas, Louisiana.	New Orleans, La.....	Morgan City, La.....	80
28	North Wisconsin, Wisconsin	Saint Croix River.....	West end of Lake Superior, with a branch from some point on the railroad to Bayfield.	
29	Pensacola, Florida.....	Pensacola, Fla.....	To junction with Mobile and Montgomery Railroad.	44
30	Selma, Rome and Dalton, Alabama.	Selma, Ala.....	Eleven miles north of Jacksonville, Ala.	156
31	Saint Louis and San Francisco, Missouri.	Saint Louis, Mo.....	Springfield, Mo.....	242
32	Saint Paul and Duluth, Minnesota.	{ Saint Paul, Minn..... Branch from White Bear Lake.	Duluth, Minn..... Stillwater, Minn.....	155 13
33	Saint Paul and Pacific, main line, Minnesota.	Saint Paul, Minn.....	Breckinridge, Minn.....	217
34	Saint Paul and Pacific, Saint Vincent Extension, Minnesota.*	Saint Paul, via Saint Cloud, Minn.	Saint Vincent, Dak.....	
35	Saint Paul and Sioux City and Sioux City and Saint Paul, Minnesota.	Saint Paul, Minn.....	Sioux City, Iowa.....	270
36	Texas and Pacific (Southern division), Louisiana.	Shreveport, La.....	Texas State line.....	
37	Vicksburg and Meridian, Mississippi.	Jackson, Miss.....	Meridian, Miss.....	95
38	Vicksburg, Shreveport and Texas, Louisiana.	Delta, La.....	Monroe, La.....	72
39	West Wisconsin, Wisconsin..	Eleven miles south of Warrens, Wis.	Hudson, Wis.....	156
40	Western Railroad of Minnesota, Minnesota.	Saint Paul, via Crow Wing, Minn.	Brainerd, on the Northern Pacific Railroad.	136
41	Wisconsin Central.....	Portage, via Stevens Point..	Bayfield, thence to Superior, on Lake Superior.	

*In operation to Alexandria, 141 miles from Saint Paul.

2d. The second class embraces those railroads to which grants of land were made on condition that the companies owning or operating the railroads shall at all times transport the troops and property of the United States free of all cost, charge, or expense to the United States, to wit:

	Name of company.	From—	To—	Miles.
1	Central Pacific (Oregon division), California.	Junction with Central Pacific Railroad.	Southern boundary of Oregon.	
2	Chicago, Milwaukee and Saint Paul (Hastings and Dakota divisions), Minnesota.	Hastings, Minn.....	Western boundary of the State.	
3	Little Rock and Fort Smith, Arkansas.	Little Rock, Ark.....	Fort Smith, Ark.....	168½
4	Memphis and Little Rock, Arkansas.	Mississippi River, opposite Memphis.	Little Rock, Ark.....	135
5	Michigan Central (Saginaw and Mackinaw divisions), Michigan.*	Amboy, Mich.....	Straits of Mackinac.....	
6	Missouri, Kansas and Texas, Kansas.	Junction City.....	Southern boundary of Kansas, and to Fort Smith, when the Indian title is extinguished.	182.56
7	Oregon and California, Oregon	Portland, Oregon.....	Southern boundary of the State.	
8	Southern Minnesota, Minnesota.	Mississippi River, opposite La Crosse, Wis.	Western boundary of the State.	
9	Saint Louis, Iron Mountain and Southern, Missouri and Arkansas.	Mississippi River, opposite Cairo, Ill., via Poplar Bluff, Mo., and Little Rock, Ark.	Texas State boundary at Texarkana.	

* Constructed and in operation as a land-grant railroad only from Lansing to Bay City, Mich., thence northward. That portion of the road from Jackson to Lansing is not a land-grant road.

The third class embraces those railroads to which grants of lands were made with the simple condition (so far as relates to compensation for the transportation of troops and property of the United States) that the railroads shall transport the troops and property of the United States at reasonable rates of compensation, not to exceed the rates paid by private parties for like transportation, coupled in some cases with the right of Congress to restrict the charges for government transportation. It also includes those railroads to which bonds of the United States have been issued, with the provision that one-half of the compensation due for military transportation shall be applied to the payment of the bonds and interest thereon.

The following are the railroads referred to :

	Name of railroad.	From—	To—	Miles.
1	Burlington and Missouri River, Nebraska.	Plattsmouth, Nebr.....	Junction with Union Pacific Railroad.	191
2	Central Pacific, main line, including the Western Pacific.	Ogden, Utah.....	San Francisco.....	883
3	Central Branch, Union Pacific Railroad.	Atchison, Kans.....	Concordia, Kans.....	155
4	Denver Pacific Railroad.....	Denver, Colo.....	Cheyenne, Wyo.....	106
5	Kansas Pacific.....	Kansas City, Mo.....	Denver, Colo.....	639
6	New Orleans, Baton Rouge and Vicksburg.	New Orleans, La.....	Texas State line.....	
7	Northern Pacific.....	Lake Superior.....	Puget's Sound.....	
8	Oregon Central.....	Portland, Ore.....	Astoria, Ore., with a branch to McMinnville, Ore.....	
9	Sioux City and Pacific.....	Sioux City, Iowa.....	Fremont, Nebr.....	113
10	Southern Pacific of California.	San Francisco, Cal., via Tres Pinos, Goshen, and Tehachapa.	A point on the Atlantic and Pacific, now Saint Louis and San Francisco Railroad, near the State line of California.	
11	Southern Pacific of California, branch line.	A point near Tehachapa Pass, via Los Angeles.	The Texas Pacific Railroad near the Colorado River.	
13	Saint Louis and San Francisco	Springfield, Mo., via Canadian River, Albuquerque, Agua Frio, and Colorado Rivers.	Pacific Ocean, with a branch from the Canadian River to the western boundary of Arkansas, at or near Van Buren, Ark.	
14	Texas and Pacific.....	A point near Marshall, Tex., via El Paso, to Southern boundary of California, thence.	San Diego, Cal.....	
15	Union Pacific.....	Omaha, Nebr.....	Ogden, Utah.....	1,033

NOTE.—The railroads in this last class (Class 3), numbered 2, 3, 5, 9, and 15, are the roads known as the Pacific railroads, to which bonds of the United States have been issued.

On June 16 and 22, 1874, and March 3, 1875, Congress passed laws forbidding the payment of any money "to any railroad company for the transportation of any property or troops of the United States over any railroad which, in whole or in part, was constructed by the aid of a grant of public land, on condition that such railroad should be a public highway for the use of the Government of the United States, free from toll or other charge, or upon any other conditions, for the use of such road for such transportation. * * * But nothing herein contained shall be construed as preventing any such railroad from bringing suit in the Court of Claims for the charges for such transportation and recovering for the same, if found entitled thereto by virtue of the laws in force prior to the passage of this act."

The Attorney-General construed these laws to embrace and include all the railroads named in the first and second classes, but not to include the railroads named in the third class. The act of March 3, 1873, forbids the payment of any money to the Pacific railroads that had received bonds of the United States (Nos. 2, 3, 5, 9, and 15, of class No. 3), that were in arrears in payment of the interest due on the bonds.

In pursuance of the provisions of the acts of June 16 and 22, 1874, and March 3, 1875, compelling the railroads to bring suit in the Court of Claims to recover whatever sum was due, if any, for military transportation under previous laws, two railroad companies (the Atchison, Topeka and Santa Fé, and the Lake Superior and Mississippi Railroad Companies) brought suit in the Court of Claims for the amount then claimed to be due. The suits were carried to the Supreme Court, and that court decided "that the government, under the land-grant laws, is entitled only to the free use of the railroads, not to the equipment, rolling-stock, &c., and that it is not entitled to have its troops and property transported by the companies over their respective railroads free of charge. That the companies are entitled to compensation for all transportation performed by them, respectively, of troops and property of the government, subject to a fair deduction for the use of their respective railroads (3 Otto, 443)."

This decision, though given in the cases above referred to, applies to and affects all the railroads that received grants of lands on like conditions, to wit, all the railroads named in class No. 1, and no others; and each and every one of those railroads can and do refer to that decision as establishing a precedent that must govern in their cases, showing that they are entitled to compensation for services rendered. They are the railroads to which 66½ per cent. of their tariff rates was paid for government transportation prior to the passage of the act of June 16, 1874.

The railroads named in class No. 2, being by their organic acts required to transport the troops and property of the United States free of cost, charge, or expense to the United States, are not affected by the decision of the Supreme Court, for no question affecting government transportation over those roads was before the court. They have never been paid for government transportation, and it is not now, by Senate bill 485, proposed to pay them for such transportation. The repeal of the acts of June 16 and 22, 1874, and March 3, 1875, will leave those roads in just the position they were prior to the passage of those acts. The organic acts forbid payment to these roads, and payment will not be made, unless future legislation directs that it be done.

Senate bill 485, amended as suggested by the Quartermaster-General, if it becomes a law, will repeal the acts just named, and authorize payment to the railroads named in class No. 1, in accordance with the decision of the Supreme Court. It is not intended to, should not, and it is believed that it does not, authorize payment to any of the railroads named in class No. 2, nor to the Pacific railroads that received bonds of the United States. But if Senators should be of opinion that the bill can be construed to authorize payment to that class of railroads, I suggest that it be further amended by adding to the proviso to the amendment suggested by me, at the end of section 2, the following:

"Nor to authorize payment for the transportation of troops and property of the United States over any railroad to which a grant of public land was made coupled with the condition that the company owning or operating the railroad shall transport the troops and property of the United States free of cost, charge, or expense to the United States, nor to any of the Pacific railroads to which bonds of the United States have been issued."

The railroads named in class No. 3, with the exception of the Pacific railroads to which bonds have been issued (Nos. 2, 3, 5, 9, and 15), have always been paid for government transportation.

There has been no legislation prohibiting payment to them for such transportation, and no legislation is now needed to authorize payment for such transportation.

Ex. Doc. No. 28 contains the views of this office in relation to the legislation here considered most necessary to carry into effect the decision of the Supreme Court, and to protect the interests of the United States, and, taken in connection with this letter, will enable all who desire to fully understand this matter.

I presume the wisdom of Congress may devise still better measures of law to accomplish the purpose sought.

Controversies are constantly arising with these railroads, in the transportation of troops and property, growing out of legislation heretofore had, which forbids the payment for transportation over certain land-grant railroads, which the Supreme Court has decided to be entitled to some compensation, and it is very desirable for the good of the military service and of the country, as well as of the railroads, that the causes of such controversies be removed, as far as possible, at an early day, and I urgently hope that the bill (Senate bill 485) with the amendments recommended by this office, or some other, will be passed at the present session of Congress.

It is a hardship to the railroad companies to be compelled to go to the Court of Claims to recover what the Supreme Court has decided in principle to be their due, and it seems to me no longer necessary to compel each and every one of the forty-one railroad companies to sue to recover moneys due for services rendered the government, now that a decision has been rendered by the Supreme Court which establishes a precedent that must govern in all the other cases. Under the law as it now stands, each and every company is compelled to sue to recover payment for all transportation heretofore performed and all that they may hereafter perform. One suit settles nothing beyond the amount involved in that suit. Moneys subsequently earned must also be sued for each and every time the companies feel that they have earned a sum sufficient to justify a suit; thus multiplying cases in the court indefinitely.

The companies have rendered service for the government, and are legally, justly, and equitably entitled to prompt payment therefor, at as little trouble and expense as possible.

While I think it very desirable that some summary remedy, in case of refusal of any of these land-grant railroads to perform their share of their contracts with the United States, in relation to military and other public transportation, be enacted, there being now in fact no remedy; still, if Congress is not yet prepared to make legal provision for such a remedy, it will not be found essential. As soon as the officers of the Quartermaster's Department are permitted to pay what is acknowledged on all hands to be justly and equitably their due, under the organic acts, controversies will almost en-

tirely cease. We have such controversies only with land-grant railroads, which believe that the government treats them unjustly in withholding what the courts decide to be their due, and whose officers cannot distinguish in feeling between a quartermaster and the nation as represented in Congress assembled.

For convenience of reference I have had the bill, with the amendments I have suggested, rewritten, and submit it herewith.

Very respectfully, your obedient servant,

M. C. MEIGS,

Quartermaster-General, Brevet Major-General, U. S. A.

The Hon. SECRETARY OF WAR.

A BILL to repeal certain provisions of the acts of Congress making appropriations for the support of the Army, approved June sixteenth and twenty-second, eighteen hundred and seventy-four, and March third, eighteen hundred and seventy-five, respectively.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That so much of the acts of Congress making appropriations for the support of the Army, approved June sixteenth and twenty-second, eighteen hundred and seventy-four, and March third, eighteen hundred and seventy-five, respectively, as prohibited the payment of any money "to any railroad company for the transportation of any property or troops of the United States over any railroad which in whole or in part was constructed by the aid of a grant of public lands on the condition that such railroad should be a public highway for the use of the Government of the United States free from toll or other charge," or prohibited any allowance to be made "for the transportation of officers of the Army over any such road when on duty and under orders as military officers of the United States," be and the same is hereby repealed; and that the accounts of such railroad companies for such transportation shall be settled and paid in the same manner as like accounts of other railroad companies; subject to the following deductions for the use of their respective railroads, in conformity to the decision of the Supreme Court of the United States, to wit:

First. That for all services of transportation heretofore performed by land-grant railway companies, thirty-three and one-third per centum shall be deducted from their tariff rates therefor, unless such services shall have been performed under a contract or stipulation with the government at other rates, in which case the deduction contracted or stipulated for shall be made at the rates so agreed upon.

Second. That from and after the passage of this act, thirty-three and one-third per centum shall be deducted from the tariff rates of all land-grant railway companies for transportation of troops and property of the United States (except the mails) over their respective roads, as a measure of deduction in return to the United States for the right to the use hereafter of the land-grant railways embraced in sections one and two of this act, as public highways, free from toll or other charge upon the transportation of any property or troops of the United States: *Provided,* That this act shall not be construed to authorize the reopening and readjustment of any account heretofore settled with any railroad company for services rendered prior to the passage of this act; nor to authorize payment for the transportation of troops and property of the United States over any railroad to which a grant of public land was made coupled with the condition that the company owning or operating the railroad shall transport the troops and property of the United States free of cost, charge, or expense to the United States, nor to any of the Pacific railroads to which bonds of the United States have been issued.

SEC. 2. That so much money as may be necessary to carry into effect the provisions of this act is hereby appropriated out of any money in the Treasury not otherwise appropriated; and that all acts or parts of acts inconsistent herewith are hereby repealed.

SEC. 3. That all railroad companies whose railroads have been constructed, or that may hereafter be constructed, by aid of grants of public lands or bonds of the United States, their successors and assigns, shall keep said railroads in repair and use, and shall at all times transport troops, munitions of war, supplies, public stores, and property of the United States over said railroads whenever required to do so by any department of the government thereof, under such rules and regulations, and upon such "transportation requests," "orders," and "bills of lading" as may be prescribed by the department requiring the transportation; that the government shall at all times have the preference in the use of said railroads for all the purposes aforesaid, and at the rates and on the conditions named in section 1 of this act; and in case any of said railroad companies, their successors or assigns, shall at any time fail or refuse to transport promptly the troops, munitions of war, supplies, public stores, and property aforesaid, when delivered to them for transportation by the proper officers or agents of the government, or to forward over their respective railroads any troops, munitions of war, supplies, public stores, and property aforesaid when delivered to said railroads

by any of their connecting lines, then the President of the United States shall take such measures as in his judgment may be necessary to protect the interests of the United States, secure the prompt transportation of the troops and property aforesaid, and to enforce compliance with the provisions of this act and of the several acts granting lands or bonds of the United States to aid in the construction of the railroads aforesaid, in respect of the transportation of the troops and property of the United States, by taking possession of said company's railroad, its equipment and all things connected therewith, or such portion thereof as may be necessary to secure or perform the transportation required, and by causing such proceedings to be instituted against any such railroad company as shall refuse or fail to transport the troops, munitions of war, supplies, public stores, and property of the United States as aforesaid, as may be necessary to enforce the penalty named in section 4 of this act: *Provided*, That no railroad shall be taken possession of under the authority conferred by this act except on special orders of the President of the United States, given at the time, and when the public interests imperatively require the prompt transportation of the troops or property.

SEC. 4. That any railroad company embraced in the provisions of this act that shall refuse, neglect, delay, or fail to promptly transport the troops, munitions of war, supplies, public stores, and property of the United States as aforesaid, shall, for each and every such refusal, delay, or failure, be liable for and forfeit and pay to the United States a sum not less than five hundred nor more than five thousand dollars, in the discretion of the court, to be recovered by civil action in the name of the United States, in any Territory, district, or circuit in which any portion of said railroad or its general offices may be situated; and in case of suit in any such Territory, district, or circuit, process may be served upon any agent or officer of said railroad company, its successors or assigns, found in the Territory, district, or circuit in which such suit may be brought, and such service shall be held by the court to be good and sufficient.

E.—Abstract of contracts for wagon transportation, entered into by the Quartermaster's Department, received at the office of the Quartermaster-General during the fiscal year ending June 30, 1879.

Names of officers.	Names of contractors.	Date of contract.	Route of supply.	Rates.	Date of expiration of contracts.
Maj. B. C. Card, chief quartermaster Department of Texas, San Antonio, Tex.	Jackson E. Labatt....	July 20, 1878	From San Antonio, or at any point on the Gulf, Western Texas and Pacific Railway, or the Galveston, Harrisburg and San Antonio Railway; also, from the Houston and Texas Central Railway, at Austin; also at any point in the State of Texas north of parallel 27° and south of parallel 32°, to any point in the State of Texas north of parallel 27° and south of parallel 32°.	81½ cents per 100 pounds per 100 miles	June 30, 1879
Do	John E. Barlow	Aug. 13, 1878	From Fort Worth, Tex., to Fort Richardson, Tex., 70 miles; to Fort Griffin, 133 miles; to Fort McKavett, 238 miles; to Fort Concho, 228 miles.	86 cents per 100 pounds per 100 miles	June 30, 1879
Maj. J. J. Dana, quartermaster, U. S. A., Philadelphia, Pa.	William J. Crawford..	June 29, 1878	Hauling in the city of Philadelphia and vicinity.	Various	June 30, 1879
Lieut. Col. S. B. Holabird, chief quartermaster Military Division of the Pacific and Department of California, San Francisco, Cal.	James M. Barney.....	June 28, 1878	From Yuma Depot, Ariz., to Camp Apache.	2 cents per pound per 100 miles	June 30, 1879
			From Yuma Depot, Ariz., to Camp McDowell.	.....do	
			From Yuma Depot, Ariz., to Camp Bowie.	1.60 cents per pound per 100 miles	
			From Yuma Depot, Ariz., to Camp Grant.	.....do	
			From Yuma Depot, Ariz., to Camp Huachuca.	.....do	
			From Yuma Depot, Ariz., to Camp Lowell.	.....do	
			From Yuma Depot, Ariz., to Camp Thomas.	.....do	
			From Ehrenberg, Ariz., to Whipple Depot, Ariz.	2½ cents per pound per 100 miles	
			From Ehrenberg, Ariz., to Camp Verde, Ariz.	2½ cents per pound per hundred miles, and return, at one-half the above rates.	
Do	Hobart M. Thatcher and Sikes Warden.	July 1, 1878	From Redding, Cal., to Fort Klamath, Oreg., or return.	\$4.94 per 100 pounds for the whole distance, for the months of July, August, September, October, and November, 1878, May and June, 1879, and \$11 for December, 1878, January, February, March, and April, 1879.	June 30, 1879

E.—Abstract of contracts for wagon transportation, entered into by the Quartermaster's Department, &c.—Continued.

Names of officers.	Names of contractors.	Date of contract.	Route of supply.	Rates.	Date of expiration of contract.
Lieut. Col. S. B. Holabird	Asa Moore and Elias Jones.	July 1, 1878	From Winnemucca, Nev., to Camp Harney, Oreg., or return.	\$3.75 per 100 pounds for the whole distance, for the months of July, August, September, and October, 1878, May and June, 1879, and \$5.50 for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Maj. M. I. Ludington, chief quartermaster Department of the Platte, Omaha, Nebr.	George Marshall	June 25, 1878	From Sidney, Nev., to Camp Robinson, Nev., 120 miles.	\$1.30 per 100 pounds for the whole distance, for the months of July, August, September, and October, 1878, May and June, 1879, and \$1.78 for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Do	do	June 25, 1878	From Cheyenne Depot, Wyo., to Fort Laramie, Wyo.	\$1 per 100 pounds for the whole distance, for the months of July, August, September, and October, 1878, May and June, 1879, and \$1.38 for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Do	do		From Cheyenne Depot, Wyo., to Fort Fetterman, Wyo.	\$1.60 for July, August, September, and October, 1878, May and June, 1879, and \$2.28 for November and December, 1878, January, February, March, and April, 1879.	
Do	do		From Cheyenne Depot, Wyo., to Fort McKinney, Wyo.	\$2.64 for July, August, September, and October, 1878, May and June, 1879, and \$3.55 for November and December, 1878, January, February, March, and April, 1879.	
Do	E. Fenlon	June 25, 1878	From Corinne, Utah, to Fort Hall, Idaho, 135 miles.	July, August, September, October, November, and December, 1878, January and February, 1879, \$1.35, \$1.35, \$1.48½, \$1.68½, \$2.02½, \$2.70, \$3.37½, \$3.37½; March, April, May, and June, 1879, \$3.37½, \$2.70, \$1.68½, \$1.35 per 100 pounds for the whole distance.	June 30, 1879
Do	George H. Jewitt	June 25, 1878	From Sidney, Nebr., to Camp Sheridan, Nebr., 162 miles.	\$1.65 per 100 pounds for the whole distance for the months of July, August, September, and October, 1878, May and June, 1879, and \$2.25 for January, February, March, and April, 1879.	June 30, 1879
Do	John M. Thayer	June 25, 1878	From Medicine Bow or Rock Creek Station to Fort Fetterman, Wyo. From Medicine Bow or Rock Creek Station to Fort McKinney, Wyo.	July, August, September, October, November, and December, 1878, April, May, and June, 1879, 87 cents, 88 cents, 86 cents, \$1, \$1.30, \$2.25, \$1.50, 97 cents, 87 cents per 100 pounds for the whole distance. July, August, September, October, November, and December, 1878, April, May, and June, 1879, \$1.65, \$1.65, \$1.80, \$2.10, \$2.45, \$4, \$2.90, \$1.90, \$1.65 per 100 pounds for the whole distance.	June 30, 1879

Do	George D. Lathrop....	June 25, 1878	From Bryan or Green River Station, Wyo., to Camp Brown, Wyo., 147 miles.	\$1.35 per 100 pounds for the whole distance for the months of July, August, September, and October, 1878, May and June, 1879; \$1.40 for November, 1878; and \$4.45 for December, 1878, January, February, March, and April, 1879.	June 30, 1879
Do	R. Warnock and H. McCorkindale.	June 25, 1878	From York Station, Wyo., to Fort Cameron, Wyo., 146 miles.	\$1.73 per 100 pounds for the whole distance.....	June 30, 1879
Maj. C. G. Sawtelle, chief quartermaster Department of the Columbia, Portland, Oreg.	Joseph Oppenheimer..	June 25, 1878	Route No. 1, from Walla Walla, Wash., to Fort Colville, Wash., 200 miles.	3.42 cents currency per pound for the whole distance for the months of July, August, September, and October, 1878, May and June, 1879, and 5.19 cents for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Do	do	June 12, 1878	Route No. 2, from Palouse Landing, Wash., to Fort Colville, Wash., 164 miles.	2.47 cents currency per pound for the whole distance for the months of July, August, September, and October, 1878, May and June, 1879, and 4.75 cents for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Do	D. W. Small and J. E. Putnam.	June 12, 1878	Route No. 3, from Walla Walla, Wash., to Camp Howard, Idaho, 150 miles.	3.20 cents currency per pound for the whole distance for July, August, September, October, November, and December, 1878, January, February, March, April, May, and June, 1879.	June 30, 1879
Do	J. Lawenberg	July 3, 1878	Route No. 4, from Lewiston, Idaho, to Camp Howard, Idaho, 65 miles.	1.94 cents currency per pound for the whole distance for July, August, September, October, November, and December, 1878, January, February, March, April, May, and June, 1879.	June 30, 1879
Do	John Ladd.....	June 12, 1878	Route No. 5, from Walla Walla, Wash., to Camp Coeur d'Alene, Idaho, 162 miles.	3.47 cents currency per pound for the whole distance for the months of July, August, September, and October, 1878, May and June, 1879, and 4.45 cents for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Do	Louis Solomon	July 3, 1878	Route No. 7, from Roseburg, Oreg., to Fort Klamath, Oreg., 200 miles.	3.60 cents currency per pound for the whole distance for the months of July, August, September, and October, 1878, May and June, 1879, and 8.25 cents for November and December, 1878, January, February, March, and April, 1879.	June 30, 1879
Lieut. Col. C. H. Tompkins, chief quartermaster Department of Dakota, Saint Paul, Minn.	W. C. Snodgrass.....	Mar. 4, 1879	From any point in the State of Minnesota or Territory of Dakota, or at any point on the Saint Paul and Pacific Railroad, or the Northern Pacific Railroad and its branches, to any point within the State of Minnesota or Territory of Dakota.	Within limits, \$1.09 per 100 pounds per 100 miles for the months of April, May, June, July, August, September, October, November, and December, 1879, and \$1.17 for January, February, and March, 1880. Outside of limits, \$1.23 for April, May, June, July, August, September, October, November, and December, 1879; \$1.39 for January, February, and March, 1880.	Mar. 31, 1880
Do	Isaac G. Baker.....	Mar. 4, 1879	From Fort Benton, Mont., or any other point in the Territory of Montana, or at Corinne, or at the northern terminus of the Utah Northern Railroad in Montana, to any point in the Territory of Montana.	Within limits, \$1.09.4 per 100 pounds per 100 miles for the months of April, May, June, July, August, September, October, November, and December, 1879, January, February, and March, 1880. Outside of limits, \$1.09.4 per 100 pounds per 100 miles.	Mar. 31, 1880

E.—Abstract of contracts for wagon transportation, entered into by the Quartermaster's Department, &c.—Continued.

Names of officers.	Name of contractors.	Date of contract.	Route of supply.	Rates.	Date of expiration of contract.
Lieut. Col. S. B. Holabird, chief quartermaster Military Division of the Pacific and Department of California, San Francisco, Cal.	Asa Morse and Elias Jones.	June 28, 1878	From Winnemucca, Nev., to Fort Boise, Idaho, or return.	\$3.50 per 100 pounds for the entire distance for the months of July, August, September, and October, 1878, May and June, 1879.	June 30, 1879
Maj. C. G. Sawtelle, chief quartermaster Department of the Columbia, Portland, Oreg.	Frank McBean.....	Aug. 25, 1878	Route No. 8, mails between Canyon City and Camp Harney, Oreg.	\$180 per month in currency for September, October, November, and December, 1878, January, February, March, April, May, and June, 1879.	June 30, 1879
Do	W. D. Corpe.....	July 3, 1878	Route No. 9, mails between Linkville, Oreg., and Fort Klamath, Oreg.	\$54 per month currency	June 30, 1879
Capt. J. H. Lord, assistant quartermaster, Philadelphia, Pa.	W. J. Crawford.....	June 26, 1879	Hauling in the city of Philadelphia and vicinity.	Various	June 30, 1879
Col. L. C. Easton, depot quartermaster, New York City.	John Richardson.....	Mar. 29, 1879	Hauling in and around New York City.	.....do	June 30, 1879
Lieut. Col. S. B. Holabird, chief quartermaster Military Division of the Pacific and Department of California, San Francisco, Cal.	S. Reinhart	June 29, 1878	From Kelton, Utah, to Fort Boise, Idaho, and return.	\$3.25 for the months of July, August, and September, 1878, May and June, 1879, and \$3.50 for October, November, and December, 1878, January, February, March, and April, 1879, per 100 pounds for the whole distance.	June 30, 1879
Do	John T. Smythe	July 1, 1878	Hauling in and around San Francisco, Cal.	Various	June 30, 1879
Do	D. W. Eaves.....	June 28, 1878	From Reno, Nev., to Camp Bidwell, Cal., and return.	\$4.95 for the months of July, August, and September, 1878, April, May, and June, 1879, and \$6.47 for October, November, and December, 1878, January, February, and March, 1879, per 100 pounds for the whole distance.	June 30, 1879
Do	Thomas Bair	July 11, 1878	From San Francisco, Cal., to Camp Gaston, Cal.	\$3.25 for the months of July, August, September, and October, 1878, April, May, and June, 1879, and \$4.50 for November and December, 1878, January, February, and March, 1879, per 100 pounds for the whole distance.	June 30, 1879
Do	C. Ryan	July 1, 1878	From Winnemucca, Nev., to Camp McDermitt, Nev.	\$1.20 per 100 pounds for the whole distance.....	June 30, 1879

Respectfully submitted.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

F.—Abstract of contracts for water transportation, entered into by the Quartermaster's Department, received at the Quartermaster-General's Office during fiscal year ending June 30, 1879.

Names of officers.	Names of contractors.	Date of contract.	Route of supply.	Rates.	Date of expiration of contract.
Lient. Col. C. H. Tompkins, deputy quartermaster-general.	Sanford B. Coulson . . .	Mar. 14, 1879	From Yankton, Dak., to Fort Benton, Mont., and intermediate points, and return, and from Yankton and Bismarck, Dak., to Fort Keogh and Big Horn Depot and intermediate points on the Yellowstone River.	Schedule rates	Aug. 31, 1879
Do	Russell Blakeley	Mar. 4, 1879	Ferriage between Fort Abraham Lincoln and Bismarck and Point Pleasant on the Missouri River.	. . . . .do	Mar. 31, 1880
Maj. B. C. Card, quartermaster	Charles A. Whitney & Co.	July 18, 1878	From New Orleans, La., or Morgan City, La., to Galveston, Indianola, Brazos Santiago, Houston, and Corpus Christi, Tex., or return, and from Galveston to Indianola, Brazos Santiago, and Corpus Christi, Tex., or return.	. . . . .do	June 30, 1879
Do	Thomas Carson	July 20, 1878	From Brazos Santiago, Tex., to Fort Brown, Ringgold Barracks, and Fort McIntosh, or return.	. . . . .do	June 30, 1879
Maj. C. G. Sawtelle, quartermaster	L. A. Loomis	July 4, 1878	From Astoria, Oreg., to Fort Stevens, Oreg., and Fort Canby, Wash., and return.	\$455 per month, \$6 per hour for detention, and \$30 each extra trip.	June 30, 1879
Capt. A. F. Rockwell, assistant quartermaster.	L. L. Blake	July 16, 1878	From Washington, D. C., to Forts Foote and Washington, Md., and return.	\$7 per day	June 30, 1879

Respectfully submitted.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

G.—Statement of vessels owned or purchased by the government and employed in the Quartermaster's Department during the fiscal year ending June 30, 1879.

Name.	Class.	Tonnage.	When purchased or built.	Estimated cost or value.	By whom employed.	Where employed.	Amount paid for repairs.	Amount paid for running expenses.	Total expenses.
Henry Smith	Steamer	178. 70	June 30, 1876	\$26, 000 00	Col. L. C. Easton, assistant quartermaster-general.	New York Harbor	\$3, 134 53	\$10, 392 69	\$13, 527 22
Ordnance	Propeller	75.	June 30, 1876	18, 000 00	Ordnance board, Lieut. Col. S. Crispin, president.	.....do	3, 122 41	6, 179 90	9, 302 31
Atlantic	Steam-tug	60. 31	Oct. 15, 1878	13, 865 56	Lieut. Col. A. J. Perry, deputy quartermaster-general.	.....do	1, 179 92	4, 684 00	5, 863 92
General McPherson..	Propeller	104. 23	Sept. 1, 1867	40, 000 00	Capt. G. W. Bradley, assistant quartermaster, and Maj. R. N. Batchelder, quartermaster.	San Francisco, Cal	5, 681 56	13, 654 38	19, 335 94
General Jesup	Steam-launch ..	19. 37	June 30, 1874	5, 000 00	Post quartermaster.....	Fort Adams, R. I	1, 200 00	1, 033 00	2, 233 00
Thayer .....	.....do	32. 36	Oct. 8, 1874	7, 200 00	.....do	Boston Harbor, Mass..	889 11	3, 818 73	4, 707 84
Monroe .....	.....do	62. 35	Nov. 20, 1875	15, 200 00	.....do	Fort Monroe, Va.....	3, 172 79	3, 057 86	6, 230 65
General Greene .....	.....do	25. 2	Mar. 3, 1874	5, 250 00	.....do	Fort McHenry, Md ..	1, 656 01	1, 044 25	2, 700 26
Hamilton .....	.....do	37. 68	Feb. 1, 1875	7, 800 00	Capt. A. F. Rockwell, assistant quartermaster, and Capt. John Simpson, assistant quartermaster.	Washington, D. C., and New York Harbor.	1, 050 00	3, 713 80	4, 763 80
Barrancas .....	.....do	28. 1	Nov. 7, 1874	5, 750 00	Post quartermaster.....	Fort Barrancas, Fla ..	148 50	2, 021 00	2, 169 50
General Sherman	Steamboat	236. 72	Apr. 30, 1877	19, 394 02	Chief quartermaster Department of Dakota.	Missouri and Yellowstone Rivers.	3, 978 00	24, 228 29	28, 206 29
Matchless	Schooner	120.	June 5, 1863	13, 500 00	Post quartermaster.....	Key West, Fla.....	1, 626 22	3, 638 33	5, 264 55
							26, 839 05	77, 466 23	104, 305 28

Respectfully submitted,

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

H.—Statement of vessels chartered, impressed, or employed by the Quartermaster's Department during the fiscal year ending June 30, 1879.

Name.	Class.	Tonnage.	When chartered.	Period of service.		Where charter money is payable.	By whom put in service or employed.	Rate of pay.	Amount paid.	Total earnings.
				From—	To—					
Governor's Island	Tug	28.68	July 1, 1878	July 1, 1878	Dec. 14, 1878	Governor's Island	Lient. Col. A. J. Perry, D. Q. M. G.	\$12 per day	\$2,004 00	*2,004 00
Do	do	28.68	June 5, 1879	June 5, 1879	June 30, 1879	do	do	\$13 per day	338 00	1338 00
Kate	do	36	Oct. 31, 1878	Oct. 31, 1878	Oct. 31, 1878	Boston, Mass	Capt. A. G. Robinson, A. Q. M.	\$24 per job	24 00	24 00
Do	do	36	May 6, 1879	May 6, 1879	May 6, 1879	do	do	\$30 per job	30 00	30 00
Callaghan	Wharfboat	1.50	May 28, 1879	May 28, 1879	May 28, 1879	do	Capt. A. S. Kimball, A. Q. M.	\$3.24 per job	3 24	3 24
Native	Sloop	8	Nov. 15, 1876	July 1, 1878	June 30, 1879	New Orleans, La	Lieut. F. B. Jones, A. A. Q. M.	\$25 per month	300 00	300 00
Neptune	Tug	Unknown.	Sept. 1, 1878	Sept. 1, 1878	Sept. 3, 1878	San Francisco, Cal.	Capt. G. W. Bradley, A. Q. M.	\$75 per day	225 00	225 00
Do	do	do	Dec. 10, 1878	Dec. 10, 1878	Dec. 14, 1878	do	Maj. R. N. Batchelder, Q. M.	\$75 per day	675 00	
Do	do	do	Dec. 20, 1878	Dec. 20, 1878	Dec. 24, 1878	do	do	do		
Do	do	do	do	do	do	do	do	do	50 00	725 00
Hope	Barge	do	Jan. 20, 1879	Jan. 20, 1879	Feb. 24, 1879	do	do	\$25 per trip	62 00	62 00
Hercules	Tug	do	Mar. 24, 1879	Mar. 24, 1879	Apr. 2, 1879	do	do	\$60 per month	425 00	425 00
Neptune	do	do	Feb. 24, 1879	Feb. 24, 1879	Feb. 26, 1879	do	do	\$50 per day	575 00	575 00
Do	do	do	Mar. 19, 1879	Mar. 19, 1879	Mar. 24, 1879	do	do	\$75 per day		
Do	do	do	Apr. 3, 1879	Apr. 3, 1879	Apr. 11, 1879	do	do	\$50 per day	400 00	400 00
Northwest	Steamboat	do	July 2, 1878	July 2, 1878	July 3, 1878	Vancouver Barracks.	Lieut. F. K. Upham, 1st Cav	\$250 per day	5,200 00	5,200 00
Do	do	do	July 8, 1878	July 8, 1878	July 13, 1878	do	do	do		
Do	do	do	July 14, 1878	July 14, 1878	July 18, 1878	do	do	\$4,000 per job	1,625 00	1,625 00
Do	do	do	May 2, 1879	May 2, 1879	May 8, 1879	Portland, Oreg.	Lieut. W. H. Miller, 1st Cav	\$250 per day		
Do	do	do	May 29, 1879	May 29, 1879	June 14, 1879	do	do	do	1,500 00	1,500 00
Mountain Queen and Huntress.	Barge	do	Jan. 26, 1879	Jan. 26, 1879	Jan. 27, 1879	Vancouver Barracks.	Lieut. F. H. E. Ebstein, 21st Inf.	\$600 per job	600 00	600 00
Spokane	Steamboat	do	July 6, 1878	July 6, 1878	July 9, 1878	do	Maj. C. G. Sawtelle, Q. M.	\$250 per day	1,011 22	1,011 22
Do	do	do	Aug. 28, 1878	Aug. 28, 1878	Sept. 9, 1878	do	do	do	3,022 67	3,022 67
Do	do	do	July 14, 1878	July 14, 1878	July 26, 1878	do	do	do	3,274 55	3,274 55
New Penino	do	do	July 8, 1878	July 8, 1878	July 10, 1878	do	do	do	906 80	906 80
Almota	do	do	Dec. 23, 1878	Dec. 23, 1878	Dec. 23, 1878	do	do	\$300 per day	300 00	300 00
General Canby	Tug	do	July 1, 1878	July 1, 1878	June 30, 1879	do	do	\$455 per month	5,460 00	5,460 00
Golden Gate	Steamer	do	Aug. 3, 1878	Aug. 3, 1878	Aug. 31, 1878	New York City.	Col. L. C. Easton, A. Q. M. G.	\$40 per day	1,281 33	1,281 33
James Bowen	Tug	do	Nov. 6, 1878	Nov. 6, 1878	Dec. 5, 1878	do	do	do	1,320 00	1,320 00
G. T. Olyphant	Steamer	200	June 16, 1879	June 16, 1879	June 30, 1879	do	do	\$55 per day	900 00	900 00
Robert Robinson.	Tug	Unknown.	June 12, 1879	June 12, 1879	June 30, 1879	do	do	\$45 per day	950 00	950 00
									32,462 81	32,462 81

* 4,342 trips between Governor's Island and New York City.

† 832 trips between Governor's Island and New York City.

Respectfully submitted.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A.

I.—Statement of the indebtedness of certain railway companies for railway material and rolling-stock purchased under provisions of Executive orders of August 8 and October 14, 1865, and orders of the Quartermaster-General, U. S. A., for the fiscal year ending June 30, 1879.

Number.	Name of company.	Value of property sold.	Interest on same to June 30, 1879.	Total expenses, charges, &c., to June 30, 1879.	Total principal, interest, expenses, and charges to June 30, 1879.	Balance of principal unpaid July 1, 1878.	Balance of interest unpaid July 1, 1878.	Expenses, &c., unpaid July 1, 1878.	Total principal, interest, and expenses unpaid July 1, 1878.	Interest, expenses, and charges for the year ending June 30, 1879.	Total to June 30, 1879.	Increase of the debt during the year ending June 30, 1879.
1	Edgefield and Kentucky.....	\$114, 772 86	\$114, 457 88	\$5, 945 00	\$235, 175 74	\$114, 772 86	\$104, 231 91	\$5, 152 48	\$224, 157 25	\$8, 958 42	\$233, 115 67	\$8, 944 95
2	McMinnville and Manchester.....	46, 508 54	44, 827 87	6, 975 20	98, 311 61	46, 508 54	41, 429 02	6, 350 72	94, 288 28	3, 995 10	98, 283 38	3, 995 10
3	Mobile and Ohio.....	505, 143 70	113, 073 69	4, 738 95	622, 956 34	60, 848 69	17, 720 52	4, 738 95	83, 308 16	4, 441 93	87, 750 09	4, 437 93
4	Memphis, Clarksville and Louisville.	336, 932 36	335, 218 27	6, 045 00	678, 195 63	336, 932 36	244, 616 85	823 94	582, 373 15	25, 196 04	607, 569 19	24, 969 94
	Total.....	1, 003, 357 46	607, 577 71	23, 704 15	1, 634, 639 32	559, 062 45	407, 978 30	17, 006 09	984, 126 84	42, 591 49	1, 026, 718 33	42, 347 92

Number.	Name of company.	Payments to June 30, 1878.	Payments made during the year ending June 30, 1879.	Total payments made to June 30, 1879.	Balance of interest unpaid July 1, 1879.	Expenses unpaid July 1, 1879.	Balance principal unpaid July 1, 1879.	Total principal, interest, and expenses unpaid July 1, 1879.	Remarks.
1	Edgefield and Kentucky.....	\$2, 060 07	\$13 47	\$2, 073 54	\$112, 590 33	\$5, 739 01	\$114, 772 86	\$233, 102 20	Due April 30, 1871.
2	McMinnville and Manchester.....	28 23	.....	28 23	44, 824 12	6, 950 72	46, 508 54	98, 283 38	Due July 1, 1869. Suit pending.
3	Mobile and Ohio.....	535, 206 25	4 00	535, 210 25	22, 162 45	4, 734 95	60, 848 69	87, 746 09	Due July 31, 1871.
4	Memphis, Clarksville and Louisville.	70, 626 44	226 10	70, 852 54	269, 212 89	1, 197 84	336, 932 36	607, 343 09	Due October 31, 1869.
	Total.....	607, 920 97	243 57	608, 164 56	448, 789 79	18, 622 52	559, 062 45	1, 026, 474 76	

The indebtedness of the following-named railroad companies has been paid in full, compromised and settled under the acts of March 3, 1871, February 27, 1875, and March 3, 1877, or dropped from the list of indebted companies because they are insolvent.

Number.	Name of company.	Value of property sold.	Interest on same to June 30, 1879.	Total expenses, charges, &c., to June 30, 1879.	Total principal, interest, expenses, and charges to June 30, 1879.	Payments to June 30, 1878.	Payments made during the year ending June 30, 1879.	Total payments made to June 30, 1879.	Total principal, interest, and expenses unpaid July 1, 1879.	Remarks.
1	Richmond, Fredericksburg and Potomac.	\$7,449 27	-----	-----	\$7,449 27	-----	-----	\$7,449 27	-----	Debt discharged January 1, 1866.
2	Georgia Railroad and Banking Company.	11,935 05	-----	-----	11,935 05	-----	-----	11,935 05	-----	Debt discharged January 12, 1866.
3	Southwestern	46,159 89	-----	-----	46,159 89	-----	-----	46,159 89	-----	Debt discharged May 4, 1866.
4	Macon and Western	83,638 15	-----	-----	83,638 15	-----	-----	83,638 15	-----	Debt discharged November 24, 1865.
5	South Carolina	23,458 50	\$1,646 76	-----	25,105 26	-----	-----	25,105 26	-----	Debt discharged January 21, 1867.
6	Muscogee	5,244 20	424 57	-----	5,668 77	-----	-----	5,668 77	-----	Debt discharged May 15, 1867.
7	Petersburg	65,000 00	3,633 60	-----	68,633 60	-----	-----	68,633 60	-----	Debt discharged August 26, 1867.
8	Memphis and Charleston	547,494 09	30,889 64	-----	578,383 73	-----	-----	578,383 73	-----	Debt discharged October 16, 1867.
9	Mobile and Great Northern	14,637 73	1,192 55	-----	15,830 28	-----	-----	15,830 28	-----	Debt discharged October 31, 1867.
10	New Orleans, Jackson and Great Northern.	200,865 58	15,656 91	-----	216,522 49	-----	-----	216,522 49	-----	Debt discharged February 29, 1868.
11	Mississippi Central	78,460 00	6,368 56	-----	84,828 56	-----	-----	84,828 56	-----	Debt discharged April 11, 1868.
12	Virginia and Tennessee	102,880 00	14,371 05	-----	117,251 05	-----	-----	117,251 05	-----	Debt discharged April 16, 1868.
13	Montgomery and West Point	38,559 66	3,324 93	-----	41,884 59	-----	-----	41,884 59	-----	Debt discharged July 16, 1868.
14	Virginia Central	70,000 00	10,364 66	-----	80,364 66	-----	-----	80,364 66	-----	Debt discharged July 21, 1868.
15	Rome	22,086 05	1,778 57	-----	23,864 62	-----	-----	23,864 62	-----	Debt discharged August 10, 1868.
16	Western and Atlantic	472,944 66	70,194 71	-----	543,139 37	-----	-----	543,139 37	-----	Debt discharged August 27, 1868. Account reopened under act of March 3, 1877, new settlement made, and \$199,038.58 refunded to the State of Georgia April 28, 1877.
17	Orange and Alexandria	118,895 74	12,497 44	-----	131,393 18	-----	-----	131,393 18	-----	Debt discharged October 3, 1868.
18	Manassas Gap	4,623 51	864 87	-----	5,488 38	-----	-----	5,488 38	-----	Debt discharged October 8, 1868.
19	Wilmington and Weldon	81,500 00	9,946 31	-----	91,446 31	-----	-----	91,446 31	-----	Debt discharged November 4, 1868.
20	Alabama and Florida	51,912 00	6,355 18	-----	58,267 18	-----	-----	58,267 18	-----	Debt discharged May 31, 1869.
21	New Orleans, Opelousas and Great Western.	113,773 45	11,947 35	-----	125,720 80	-----	-----	125,720 80	-----	Debt discharged August 21, 1869.
22	Norfolk and Petersburg	2,112 00	-----	-----	2,112 00	-----	-----	2,112 00	-----	Debt discharged January 11, 1870.
23	Western North Carolina	14,269 82	2,084 08	\$48 00	16,401 90	-----	-----	16,401 90	-----	Debt discharged June 6, 1870.
24	Atlantic and North Carolina	51,453 93	11,040 15	-----	62,494 08	-----	-----	62,494 08	-----	Debt discharged July 31, 1870.
25	Macon and Brunswick	26,820 00	4,861 44	61 80	31,743 24	-----	-----	31,743 24	-----	Debt discharged January 25, 1871.
26	Selma and Meridian	146,327 92	23,936 79	568 00	170,832 71	-----	-----	170,832 71	-----	Debt discharged June 13, 1871.
27	San Antonio and Mexican Gulf	48,775 19	17,048 49	4 25	65,827 93	-----	-----	65,827 93	-----	Debt discharged June 14, 1871.
28	Washington, Alexandria and Georgetown.	324 06	-----	-----	324 06	-----	-----	324 06	-----	Debt discharged October 16, 1871.
29	Memphis and Ohio	106,929 13	22,998 78	-----	129,927 91	-----	-----	129,927 91	-----	Debt discharged October 27, 1871.

Indebtedness of railroad companies paid in full, &c.—Continued.

Number.	Name of company.	Value of property sold.	Interest on same to June 30, 1879.	Total expenses, charges, &c., to June 30, 1879.	Total principal, interest, expenses, and charges to June 30, 1879.	Payments to June 30, 1878.	Payments made during the year ending June 30, 1879.	Total payments made to June 30, 1879.	Total principal interest, and expenses unpaid July 1, 1879.	Remarks.
30	New Orleans and Ohio	32,150 00	13,719 95	4,647 20	50,517 15	.....	.....	24,728 28	\$25,788 87	Company insolvent; account therefore dropped from list of indebted companies.
31	Pacific Railroad of Missouri ..	125,433 65	.....	.....	125,433 65	.....	.....	125,433 65	.....	Debt discharged July 12, 1872.
32	Alabama and Florida (for repairs).	27,109 04	.....	7,029 40	34,138 44	.....	.....	34,138 44	.....	Debt discharged January 8, 1873.
33	Indiana	20,000 00	.....	.....	20,000 00	.....	.....	20,000 00	.....	Debt discharged May 24, 1873.
34	Mississippi and Tennessee	127,750 52	30,510 41	.....	158,260 93	.....	.....	158,260 93	.....	Debt discharged May 31, 1873.
35	Alabama and Chattanooga	30,248 52	13,665 76	543 03	44,457 31	.....	.....	44,457 31	.....	Debt discharged November 1, 1873.
36	Nashville and Chattanooga	1,566,551 78	615,631 70	2,234 12	2,184,417 55	.....	.....	396,677 22	1,787,740 33	Compromised under act of March 3, 1871, for \$1,000,000, one-half payable in ten and one-half in twenty years from June 1, 1871, with 4 per cent. interest.
37	East Tennessee and Georgia ..	366,183 02	160,986 77	4,401 73	531,571 52	.....	.....	165,542 08	366,029 44	Companies consolidated; debts compromised under act of March 3, 1871, for \$195,000; \$5,000 cash; balance payable one-half in ten and one-half in fifteen years from January 1, 1872, with 4 per cent interest.
38	East Tennessee and Virginia ..	265,655 65	116,906 07	2,322 73	384,884 45	.....	.....	153,438 76	231,445 69	
39	Nashville and Decatur	405,193 92	144,407 99	302 35	549,904 26	.....	.....	248,473 39	301,430 87	Compromised under act of March 3, 1871, for \$70,000; \$6,000 cash; balance in ten years from July 1, 1872, with 5 per cent. interest.
40	Mississippi, Gainesville and Tuscaloosa.	33,476 39	20,057 35	67 75	53,601 49	.....	.....	9,856 09	43,745 40	Company insolvent; account therefore dropped from list of indebted companies.
41	Knoxville and Kentucky	12,335 63	5,781 00	154 27	18,270 90	.....	.....	7,901 15	10,369 75	Settled under act of March 3, 1871, for \$8,000 in Tennessee State bonds.
42	Southwest branch Pacific Railroad of Missouri.	57,115 24	.....	.....	57,115 24	.....	.....	57,115 24	.....	Debt discharged May 8, 1876.
43	Selma, Rome and Dalton	183,276 49	107,995 47	53 95	291,325 91	.....	.....	188,754 19	102,571 72	Settled under act of February 27, 1875.
44	Alexandria, Loudoun and Hampshire.	62,592 96	21,640 46	175 73	84,409 15	.....	.....	84,409 15	.....	Debt discharged April 11, 1876.

45	Nashville and Northwestern...	525,400 26	478,462 69	2,257 91	1,006,120 86	\$97,550 79	\$112 20	97,682 79	908,438 07	Company insolvent; account there- fore dropped from list of indebted companies. Settled February 12, 1876, under act of February 27, 1875.
46	Memphis and Little Rock.....	153,673 89	67,336 40	16,664 01	237,674 30	130,283 55	16,897 98	147,181 53	90,492 77	
	Total	6,552,676 49	2,080,529 41	41,536 23	8,674,742 13	227,834 34	17,010 18	4,806,689 22	3,868,052 91	

I certify the above statement to be correct.

HENRY C. HODGES,
Deputy Quartermaster-General, U. S. A., in charge of Railroad Indebtedness.

K.—*Specification for traveaux.*

TRAVOIS SPECIFICATION.

The travois for wounded consists of the following essential parts, viz: Two litter-poles; two shafts; two cross-bars, with springs; seven bed-slats, with canvas covering, of the following dimensions:

Litter-poles: Length, one 9 feet 6 inches, the other 9 feet; width, $1\frac{1}{2}$ inches; depth, in front of front iron collar, 2 inches, behind front of iron collar, $2\frac{1}{4}$ inches.

The depth is gradually diminished until it measures 2 inches at a point midway between the rear iron collar and the swell for the lower cross-bar, where it again increases, and at the swell for the lower cross-bar is $2\frac{1}{2}$ inches.

Iron shoe is 1 foot long, $\frac{1}{4}$ -inch iron. Iron collar: Length, 5 inches; width, $1\frac{1}{2}$ inches; diameter for opening for shafts, $2\frac{1}{2}$ inches; thickness of iron, $\frac{1}{2}$ of an inch.

Distance between front and rear collars, $7\frac{1}{2}$ inches.

Shafts: Length, 7 feet 8 inches; diameter at point $1\frac{1}{2}$ inches; depth at butt, $2\frac{1}{2}$ inches; width at butt, $1\frac{1}{2}$ inches.

Bed-slats: Length, 6 feet; width, $1\frac{1}{2}$ inches; thickness, $\frac{5}{8}$ of an inch.

On either end of each bed-slat are sole-leather straps, attached to the slats by three rivets. Those on one end are 18 inches long and $1\frac{1}{2}$ inches wide; those on the other end, 6 inches long and $1\frac{1}{2}$ inches wide. These straps have eyelet-holes for the purpose of hooking on to the several springs on cross-bar.

Cross-bars: Length, 30 inches, $\frac{1}{2}$ -inch spring wire; width, $1\frac{3}{4}$ inches; thickness, $2\frac{1}{2}$ inches, diminished at center of bar to 2 inches.

Diameter of collar, $1\frac{1}{2}$ inches.

One litter-pole is shorter than the other by 6 inches, for the purpose of lessening the shock in passing over inequalities in the ground, one pole dropping into a depression or mounting an obstacle before the other, and thus equalizing the motion. The springs on cross-bars are a modification of the "Tucker" bed-spring, the modifications consisting in the introduction of an extra superior coil and stay-rod. The jointures are all made on the principle of the wedge; at that of the shafts and litter-pole, the rear end of the shafts is larger than the iron collars on the front of the poles through which it passes; the joint becoming firmer with the continuation of pulling force upon it; that of the cross-bars to the litter-poles is on the same principle.

The arrangement of straps to the bed enables the patient to be laid horizontal to the ground, or at any angle thereto desirable.

"The canvas for bed is doubled, then stitched between each slat."

The rings on the end of shafts are attached to the shafts by a wrought-iron cap 2 inches deep securely riveted to the end of the shaft, the ring to be attached to the end of the cap by a swivel joint. The rings on the end of litter-poles are attached in the same way. Two holes, $\frac{1}{2}$ inch diameter and $1\frac{1}{2}$ inch deep, should be bored in the upper side of the front end of the litter-poles; one 8 inches from the end, the other 24 inches. These are intended for the reception of bent sticks over which an awning of any material can be thrown.

"Each travois should be provided with four good leather straps (with buckles attached), 30 inches long, 1 inch wide, which serve to secure the travois when rolled up for transportation, and when it is in use can act as hand handles, by buckling them to the litter-poles."

All the parts of these traveaux are interchangeable, that is, either shaft fits to either litter-pole, or either cross-bar can be at the front or rear; the only part to observe in fixing the cross-bars is that the concavity and point of the spring books must look away from the bed.

SPECIFICATION FOR MATERIAL.

Wood-work.—Best seasoned ash.

Iron-work.—Best Norway.

Springs.—Best steel 1-6-inch wire.

Leather.—Best harness and best sole, as indicated.

Canvas.—Best American duck.

SPECIFICATIONS FOR TRANSPORTATION TRAVOIS.

The litter-poles should be four (4) feet shorter than in the travois for wounded, the wood-work $\frac{1}{4}$ inch thicker. Springs omitted from the cross-bar, the cross-bars are only $3\frac{1}{2}$ feet apart, and instead of the bed-slat is a sheet of sole-leather $3\frac{1}{2}$ feet long by thirty inches wide, to be fastened to the cross-bars by 7 stout harness-leather straps, with buckles attached. Into the under side of the shaft, a mortised bed is let $3\frac{1}{2}$ feet long, $\frac{3}{4}$ inch wide, and $\frac{1}{2}$ inch deep, into which rests a steel bar, fastened to the shaft by

a swivel joint at the front end, and kept in place at the rear by a button; its object is to keep the travois at a proper angle when in camp, to be speedily hitched; when traveling the bar is in place.

TO PUT THE TRAVOIS TOGETHER.

1st. Pass the point of the shaft from behind forward, through the collars in the front end of the litter-pole; a smart pull brings it "home."

2d. Put the front cross-bar on first, by slipping its collar over the front end of the litter-pole; keep the concavity and points of the terminal spring hooks to the front, i. e., towards the shafts.

3d. Put the rear cross-bars on by slipping its collar over the rear ends of the litter-poles, and shoving it toward the front until the widened part of the pole binds and stops it; the concavity and points of the terminal springs must look to the rear.

Lastly. Put the litter-bed into position by slipping the leathers on the spring-hooks through the eyelet-holes made for that purpose, and the travois is ready for use.

HARNES FOR TRAVOIS.

A "Dutch collar," a breast-strap with traces and toggle-chain, and a harness-saddle, extra padded, with tugs and belly-straps, is the harness which should accompany each travois. In active service, if the draft-animal is a saddle-horse, to hitch him to the travois, cross the stirrups, pass the ends of the shafts through the stirrup-leathers, and buckle the strap on the pommel of the saddle, through the ring on the end of the shaft. For very long journeys the breeching to the harness of a draft-mule can be reversed and put over the horse's neck, thus improvising a Dutch collar. If a wagon-mule is the draft-animal, any harness will work, either wheel, swing, or lead, by passing the toggle of the trace-chain through the ring on the end of litter-pole, and steadying the shafts by a double turn of the back-straps about them. The regular travois-harness is, however, much more convenient in either case. One man only is required to manage animal, travois, and patient.

One set of harness should accompany each travois.

Weight of travois not to exceed 60 pounds.

L.—*Special report of transportation animals, vehicles, and men employed at San Antonio depot and post.*

HEADQUARTERS DEPARTMENT OF TEXAS,
CHIEF QUARTERMASTER'S OFFICE,
San Antonio, Tex., July 21, 1879.

SIR: In obedience to your instructions of the 11th instant, I have the honor to inclose herewith a special report of transportation animals, vehicles, and men employed or kept at the San Antonio depot and post, showing how the same are employed, and the monthly cost thereof, &c.

The compensation of the men, as reported, covers not only the pay of train-masters, teamsters, &c., but of men employed in repairing means of transportation. These repairs include repairs of wagons and harness sent in from the western posts, it being more economical to make such repairs here than to keep a force of workmen at each post, and to purchase and transport material for repairs thereto. In the item of forage is included, of course, the cost of forage fed to the animals held in reserve for issue and to meet emergencies.

It is important that in a department like this, where nearly all the posts are off the lines of water and rail transportation, and depending entirely upon wagon or pack service, that there should be a reserve at this depot. The necessity for this has been apparent on more than one occasion, when we have had to organize at short notice means of transportation to supply bodies of troops marching into Mexico.

In this connection I feel that it is due to Captain Bradley, the depot quartermaster at San Antonio, to say that in my opinion there has not been a time when the depot was more efficiently and economically managed than at this time, and in this opinion I am sustained by every officer who has had the opportunity to notice or has noticed the results of his management.

Very respectfully, your obedient servant,

BENJ. C. CARD,
Brevet Brigadier-General, Chief Quartermaster.

QUARTERMASTER-GENERAL, UNITED STATES ARMY,
Washington, D. C.,

Through Headquarters Department of Texas and Chief Quartermaster Military Division of the Missouri.

The following is a copy of the report inclosed in Major Card's letter:

SPECIAL REPORT OF TRANSPORTATION ANIMALS, VEHICLES, AND MEN EMPLOYED AT HEADQUARTERS DEPARTMENT OF TEXAS, SAN ANTONIO DEPOT AND POST OF SAN ANTONIO, SHOWING HOW EMPLOYED AND WHY NECESSARY, WITH COST OF MAINTENANCE, SALARIES, FEED, &C.

1. *Animals and vehicles on hand.*

Mules	400
Six-mule wagons.....	102
Four-mule wagons.....	9
Two-mule wagons.....	2
Ambulances.....	2
Ambulance wagons.....	2
Spring wagons.....	9
Carts.....	28
Concord wagon.....	1
Water-wagon.....	1

2. *Men employed and kept.*

Master of transportation.....	1
Train-master.....	1
Assistant train-masters.....	2
Teamsters.....	106
Hos:lers and herders.....	3
Yard-master.....	1
Blacksmiths.....	6
Wheelwrights.....	6
Saddlers.....	2
Painters.....	2

3. *Four hundred mules organized and in teams as follows.*

43 six-mule teams.....	258
2 four-mule truck-teams.....	8
11 four-mule teams.....	44
2 two-mule teams.....	4
In hospital.....	14
Riding-mules.....	3
Cart-mules.....	11
Herd.....	58
Total.....	400

Of the 58 in herd, 28 are selected for issue on estimates, viz, 16 for Santa Maria, 6 for Fort Duncan, and 6 for Fort Ringgold.

Of the four-mule teams, 7 are kept for paymasters and their escorts, to make the payment of troops in this department, and the remaining are in general use at department headquarters for use of inspectors, officers requiring transportation to the several posts in the department, as in making special inspections, or boards of survey duty, &c., post of San Antonio, and quartermaster's depot.

The six-mule teams are employed as follows: 15 at Fort Clark, *on temporary duty for the summer*; 5 at Fort Davis, 8 and 2 truck-teams hauling military supplies to and from railroad depot and San Antonio Arsenal; subsistence supplies from quartermaster's depot to post subsistence storehouse, and distributing wood, hay, and grain to officers and troops stationed at San Antonio, Tex.; 15 are organized in trains, and while held for active service in the distribution of recruits, supplies, &c., they are engaged in hauling stone, sand, and gravel.

An adequate idea of the varied labor required of teams and teamsters at this depot can scarcely be conveyed in this report. The following is a portion of the labor performed since last January: 500 feet of road, 26 feet wide, on west side of depot in closure, and 500 feet, 50 feet wide, on north side, has been excavated and filled with 1.45⁸ loads of stone, a greater portion of which had to be broken by hammers; 450 feet of gutters, requiring 200 loads of cobble-stones, has been made; 7 storerooms requiring 225 loads of stone and 35 loads of sand, have been floored with concrete cement; 113 loads of gravel for top dressing of roads has been hauled into the depot, and 20 loads of stone and 80 of gravel into corral to grade stables.

The circle around the tower has been ornamented with a cut-stone curb of white stone, hauled 30 miles from this place. Carved posts, with hanging chains, have been put up around the circle.

The sand is hauled 20 miles—consuming three days for the round trip. The gravel about 6 miles, one trip per day per team being made. The stone is hauled about 3 miles, two trips per day being made.

Thirty-six six-mule teams and 10 four-mule teams have been required for moving the Tenth and Second Infantry, and detachments of recruits, to the following posts: Forts McKavett, Concho, Stockton, Davis, Duncan, and McIntosh; and part of the Tenth Infantry from Fort McKavett to Austin.

Teams, with teamsters, have been sent with horses and mules to the following posts: twice to Fort Clark, and once each to Forts McIntosh, Concho, Stockton, and Davis. Fifteen teamsters are now out with mules. Upon their return 10 will be discharged.

Thirty army and spring wagons have been overhauled and put in thorough repair, besides the numerous calls for repairs from frontier posts.

The constant use required of the transportation necessitates frequent repairs, and the force of mechanics allowed me is barely sufficient to keep it well up.

The monthly wages of employes amounts to \$4,427 50

The monthly consumption of forage is as follows, viz:

Grain, 108,000 pounds	1,553 70
Hay, 168,000 pounds	1,287 72
	7,268 92

Respectfully submitted.

G. W. BRADLEY,

Assistant Quartermaster, U. S. A., Depot Quartermaster.

SAN ANTONIO, TEX., July 22, 1879.

Indorsements upon the foregoing report.

[First indorsement.]

HEADQUARTERS DEPARTMENT OF TEXAS,

San Antonio, July 24, 1879.

Respectfully forwarded through Headquarters Military Division of the Missouri.

The reserve of mule teams, &c., at the San Antonio depot has been more or less continually in the field during the last two months; there alone has the Quartermaster's Department been enabled to keep the cavalry posts supplied with short forage, which contractors failed to supply in time.

Moreover, nearly all the fresh vegetables have been transported to posts by it, as the ox-teams of contractors are too long on the road.

But the main reason for keeping said reserve is, that under authority from Washington I have been compelled to hold a force of ten or twelve hundred men, of all arms, at Fort Clark.

* * * * *

I believe the authorities approving and authorizing the reserve train, &c., were fully cognizant of the uses for which it was intended and the circumstances requiring it.

E. O. C. ORD,

Brigadier-General, U. S. A., Commanding.

[Third indorsement.]

HEADQUARTERS MILITARY DIVISION MISSOURI,

OFFICE CHIEF QUARTERMASTER,

Chicago, August 7, 1879.

Respectfully forwarded to the Quartermaster-General.

I have no doubt that Major Card's statement regarding the management of the San Antonio depot is entirely correct.

RUFUS INGALLS,

Colonel and Assistant Quartermaster-General,

Brt. Maj. Gen., U. S. A., Chief Quartermaster.

No. 6.—*Annual report of Maj. J. M. Moore, U. S. A., of principal operations of Barracks and Quarters Branch, Quartermaster-General's Office, for fiscal year of 1878 and 1879.*

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, September 10, 1879.

GENERAL: I have the honor to submit for your information my report covering the principal operations of the barracks and quarters branch of this office during the fiscal year ending June 30, 1879, the appropriation for the year being \$880,000.

NEW CONSTRUCTIONS.

During the year the construction of 104 new buildings, such as barracks, officers' quarters, stables, storehouses, guard-houses, &c., has been authorized, at an estimated cost of \$227,463.

They are at military posts in the States of California, Kansas, Missouri, Nebraska, Minnesota, Texas, Rhode Island, New York, Connecticut, Virginia, Maryland, Pennsylvania, North Carolina, South Carolina, Florida, Arkansas, and Kentucky, and in the Territories of Arizona, Idaho, Washington, Indian, Wyoming, Dakota, Montana, New Mexico, and District of Columbia.

WHARVES.

Authority has been given for the repair, &c., of wharves to the amount of \$18,393.

REPAIRS.

Upon special estimates authority has been given to make repairs, alterations, &c., of public buildings, for the construction and repair of cisterns, &c., and for the purchase of tools, &c., for use at the various military posts, to the amount of \$271,536.

Recapitulation of the expenditures specially authorized for construction of new buildings at established posts, construction and repair of cisterns, miscellaneous repairs, &c., and how distributed.

	Amounts.	Total
Department of Arizona	\$23,715 00	.....
Department of California.....	61,820 00	.....
Department of Columbia.....	54,151 00	.....
Total, Division of the Pacific		\$139,686 00
Department of the Missouri.....	70,066 00	.....
Department of the Platte.....	15,646 00	.....
Department of Dakota.....	36,102 00	.....
Department of Texas.....	64,422 00	.....
Total, Division of the Missouri.....		186,236 00
Department of the South.....	37,758 00	.....
Department of the East.....	153,712 00	.....
Total, Division of the Atlantic.....		191,470 00
Grand total.....		517,392 00

NEW POSTS.

In addition to the foregoing expenditures, some \$4,600 has been authorized in providing shelter for the troops at the new cantonment on North Fork of the Canadian River, in the Indian Territory.

The commanding general Division of the Pacific having reported that the removal of Moses' Indians and others to the reservation set off for them to the west of the Colville reservation will make it desirable to establish a four-company post west of Fort Colville, at or near the foot of Lake Chelan, the Secretary of War, on June 26, 1879, authorized the division commander to use any spare barracks and quarters money in his division for supplying needed materials for this temporary camp.

SPECIAL BUILDING PROJECTS AUTHORIZED BY CONGRESS.

Fort Assinaboine.—In Army bill approved June 18, 1878, the sum of \$100,000, or so much thereof as might be necessary, was appropriated for the purpose of building a military post or garrison near the northern boundary of the Territory of Montana, in the vicinity of the point where the Milk River crosses said boundary from the Dominion of Canada, or at such other point in that region as might be, in the judgment of the President, best adapted for the protection of the citizens of Montana from the hostile incursions of the Sioux and other Indian tribes congregated in that region.

This new post is located in latitude 48° 35', longitude 109° 45', on Beaver Creek, about 6 miles above its junction with Milk River, and is to be known as Fort Assinaboine.

It is intended that this shall be a six-company post, and plans for the following buildings, to be of brick, have been approved by the honorable Secretary of War, viz:

	No. of buildings.
Commanding officer's quarters	1
Field-officers' quarters	2
Company officers' quarters	10
Barracks, two companies each	3
Hospital—24 beds	1
Quartermaster storehouse	1
Granary	1
Commissary storehouse	1
Stables	3
Guard-house	1
Bake-house	1
Magazine	1
Offices	1

Fort Meade, Dak.—In same bill Congress appropriated \$100,000, or so much thereof as might be necessary, for the purpose of building a military post or garrison at the foot-hills near the Black Hills, in either of the Territories of Wyoming or Dakota, at such point in that region as might be, in the judgment of the President, best adapted for the protection of the citizens of the Black Hills country from the hostile incursions of the Sioux and other Indian tribes congregating or operating in that locality.

This post has been located on Bear Butte Creek, Black Hills, Dakota Territory, and is known as Fort Meade, Dak.

It is intended to make this a ten-company post—four of infantry and six of cavalry—and style of buildings similar to those at Fort Abraham Lincoln.

From latest report it was expected that 28 buildings would be com-

pleted by the middle of June, which would include barracks for eight companies, officers' quarters, stables, storehouses, &c.

Omaha.—In some bill Congress authorized \$60,000, or so much thereof as might be necessary, for the construction of suitable buildings for storehouses and offices at Omaha, Nebr.

The United States owning no land at that time in that city upon which to locate these buildings, it was decided to put them up at Fort Omaha, about three miles distant from the city, and it is presumed that the entire work has been completed, or at least very nearly so, at this time.

Congress, in Army bill approved June 23, 1879, appropriated \$30,000 for the construction of a necessary storehouse and depot building in the city of Omaha, "provided no part of said sum shall be used in the purchase of the ground required for such purpose." The Secretary of War, however, by said act, is authorized to receive, by donation of citizens or others, the title for any lots or tracts of land necessary to the proper location of the building or buildings.

Requisite steps have been taken with a view to securing, by donation, suitable grounds upon which to place the buildings.

Leavenworth Prison.—In sundry civil bill approved June 20, 1878, Congress authorized an expenditure of \$13,500 for building operations at the Fort Leavenworth Military Prison.

This money has been expended in building storerooms, workshops, &c., completing hospital, and for general repairs.

Fort Monroe Barracks.—In same bill as above, Congress appropriated for "repairs and erection of barracks at Fort Monroe, Va., \$25,000."

Work was duly commenced under contract for a portion of the needed barracks to accommodate six companies. One wing was completed within the amount granted, and Congress, in sundry civil bill for present fiscal year, made an additional appropriation of \$34,000 with which to complete the building.

Fort Lewis.—In sundry civil bill approved March 3, 1879, \$40,000 is appropriated to enable the Secretary of War to establish a military post in the vicinity of Pagosa Springs, on the left bank of the San Juan River, in the State of Colorado, for the protection of the San Juan country.

It is intended to make this a four-company post, and it is to be known as Fort Lewis.

New Fort Bliss.—By act approved February 4, 1879, Congress appropriated \$40,000 for the purchase of the necessary grounds and the erection of a military post thereon at El Paso, Tex., provided that before expenditure of any portion of this appropriation, good and sufficient title shall be made to the United States for the land contemplated.

After properly securing the land, which can probably be done for a nominal sum, it is proposed to put up the requisite buildings for a four-company post.

Madison Barracks.—In sundry civil bill approved March 3, 1879, Congress appropriated "for rebuilding of eight set of officers' quarters at Madison Barracks, Sacket's Harbor, New York, destroyed by fire on November 6, 1876, according to plans and specifications in the Office of the Quartermaster-General of the United States, \$25,000."

All requisite orders have been issued by this office for the rapid prosecution of the work.

Fort Snelling.—In same bill Congress appropriated for the purpose of constructing the necessary buildings, under direction of the Secretary of War, for headquarters of the Department of Dakota, at the military post of Fort Snelling, in the State of Minnesota, in accordance with the estimates of General C. H. Tompkins, deputy quartermaster-gen-

eral, United States Army, chief quartermaster Department of Dakota, \$100,000.

Steps have already been taken for the early commencement of this work.

In army bill approved June 23, 1879, \$50,000 is appropriated "for the construction of a military post near the Niobrara River, in Northern Nebraska or Dakota, at a point to be selected by the General of the Army, with the approval of the Secretary of War."

HOSPITALS.

During the fiscal year, construction, repairs, and alterations, &c., of the military hospital buildings throughout the country have been authorized to the amount of \$74,987.

The following table gives the locality of the hospitals and the amount of expenditures authorized at each:

Department.	Post.	Amount.	Total.
East	Fort Preble, Me	\$38 00	\$14,805 00
	Fort Adams, R. I.	38 00	
	David's Island, N. Y.	9,170 00	
	Plattsburgh Barracks, N. Y.	362 00	
	Fort Porter, N. Y.	140 00	
	Fort Foote, Md.	276 00	
	Fort Wayne, Mich.	110 00	
	Willets Point, N. Y.	540 00	
	Fort Wadsworth, N. Y.	468 00	
	Fort Independence, Mass.	176 00	
	Fort Hamilton, N. Y.	495 00	
	Carlisle Barracks, Pa.	15 00	
	Fort Brady, Mich.	124 00	
	Fort Monroe, Va.	547 00	
	Washington Arsenal.	698 00	
	Fort McHenry, Md.	498 00	
	Fort Wood, N. Y.	124 00	
	Fort Niagara, N. Y.	132 00	
	Fort Ontario, N. Y.	97 00	
	Madison Barracks, N. Y.	540 00	
Fort Columbus, N. Y.	163 00		
Columbus Barracks, Ohio.	54 00		
Total Department of the East			
South	McPherson Barracks, Ga.	68 00	12,264 00
	Charleston, S. C.	10,000 00	
	Chattanooga, Tenn.	103 00	
	Fort Johnston, N. C.	158 00	
	Mount Vernon Barracks, Ala.	212 00	
	Saint Augustine, Fla.	364 00	
	Newport Barracks, Ky.	266 00	
	Fort Barrancas, Fla.	309 00	
	Baton Rouge Barracks, La.	226 00	
	Little Rock Barracks, Ark.	88 00	
	Key West Barracks, Fla.	470 00	
	Total Department of the South		
Total Division of the Atlantic			27,069 00
Arizona	Camp Grant, Ariz.	400 00	9,504 00
	Camp Thomas, Ariz.	100 00	
	Camp Lowell, Ariz.	1,755 00	
	Camp McDowell, Ariz.	4,200 00	
	Camp Mohave, Ariz.	973 00	
	Camp Verde, Ariz.	990 00	
	Fort Whipple, Ariz.	1,086 00	
Total Department of Arizona			
California	Fort Alcatraz, Cal.	72 00	2,893 00
	Angel Island, Cal.	679 00	
	Benicia Barracks, Cal.	40 00	
	Camp Bidwell, Cal.	160 00	
	Camp Halleck, Nev.	293 00	
	Camp McDermitt, Nev.	350 00	
	Presidio, Cal.	1,137 00	
	Fort Point, Cal.	162 00	
Total Department of California			

Department.	Post.	Amount.	Total.
Columbia	Fort Boise, Idaho	\$470 00	
	Fort Canby, Wash	112 00	
	Fort Klamath, Oreg	56 00	
	Fort Lapwai, Idaho	5,000 00	
	Coeur d'Aléne, Idaho	4,838 00	
	Camp Howard, Idaho	300 00	
	Fort Stevens, Oreg	108 00	
	Fort Townsend, Wash	95 00	
	Fort Vancouver, Wash	433 00	
	Fort Walla Walla, Wash	840 00	
Total Department of the Columbia			\$12,342 00
Total Division of the Pacific			24,739 00
Missouri	Fort Reno, Ind. T	325 00	
	Fort Marcy, N. Mex	35 00	
	Fort Bayard, N. Mex	461 00	
	Fort Dodge, Kans	218 00	
	Fort Leavenworth, Kans	1,629 00	
	Fort Hays, Kans	415 00	
	Fort Lyon, Colo	620 00	
	Fort Riley, Kans	423 00	
	Fort Wingate, N. Mex	15 00	
	Fort Stanton, N. Mex	3,596 00	
	Camp Supply, Ind. T	506 00	
	Fort Union, N. Mex	40 00	
	Fort Wallace, Kans	164 00	
	Fort Gibson, Ind. T	811 00	
	North Fork Canadian River, Ind. T	355 00	
	Fort Elliott, Tex	170 00	
Jefferson Barracks, Mo	2,070 00		
Total Department Missouri			11,853 00
Platte	Fort Cameron, Utah	200 00	
	Camp Brown, Wyo	1,862 00	
	Camp Douglas, Wyo	21 00	
	Fort Fred Steele, Wyo	170 00	
	Fort Laramie, Wyo	425 00	
	Fort Omaha, Nebr	231 00	
	Fort Sanders, Wyo	233 00	
	Fort McPherson, Nebr	537 00	
Total Department of the Platte			3,679 00
Dakota	Fort Snelling, Minn	63 00	
	Fort Yates, Dak	292 00	
	Fort Logan, Mont	85 00	
	Fort Benton, Mont	34 00	
	Fort Missoula, Mont	1,000 00	
	Fort Buford, Dak	60 00	
	Fort Ellis, Mont	122 00	
	Fort A. Lincoln, Dak	83 00	
	Fort Pembina, Dak	142 00	
	Fort Randall, Dak	320 00	
	Fort McKinney, Mont	114 00	
	Fort Custer, Mont	332 00	
	Fort Shaw, Mont	125 00	
Fort Stevenson, Dak	50 00		
Fort Sisseton, Dak	71 00		
Total Department of Dakota			2,893 00
Texas	Fort Concho, Tex	527 00	
	San Diego, Tex	1,612 00	
	Fort Davis, Tex	510 00	
	San Felipe Tex	80 00	
	Fort Stockton, Tex	94 00	
	Fort McKavett, Tex	456 00	
	Fort Ringgold, Tex	966 00	
	Fort Clark, Tex	360 00	
	San Antonio, Tex	149 00	
Total Department of Texas			4,754 00
Total Division of the Missouri			23,179 00
Grand total			74,987 00

The appropriation for the construction and repair of hospitals was \$75,000.

The sale of four buildings and remnants of two wharves at different places has been authorized.

MILITARY SITES IN TEXAS.

By act approved March 3, 1875, Congress authorized the purchase of three sites in that State, viz:

Fort Brown	\$25,000
Ringgold Barracks	10,000
Fort Duncan	10,000

Provided "that before the payment of the money hereby appropriated good titles shall be made to the United States for such lands as contemplated by such act, * * * and no more than the amount appropriated shall be paid for such sites"; and by same act the Secretary of War was authorized to accept for the United States, and free of all expense, a conveyance of the site of Fort McIntosh.

The title to the site of Fort Brown has long been in litigation, but the district court of Texas a short time since confirmed the title to the heirs of one Maria Josepha Cavazos. The heirs having declined to sell the property for the amount appropriated, suit was instituted by the United States in the district court of Cameron County, under the laws of Texas, for the condemnation, valuation survey, and expropriation of the land, which has since been decided adversely to the United States.

The site of Ringgold Barracks was also for years in litigation, but the district court of Starr County, by decree dated April 5, 1878, fixed \$20,000 as the price to be paid by the United States for the site, with \$500 additional for costs, and \$29.49 for other expenses.

The Secretary of War, on the 22d May, 1878, asked Congress to appropriate the requisite funds, viz, \$10,529.49, in addition to the \$10,000 already standing on the books of the Treasury to the credit of the fund for purchase of the site. Congress has not up to this time made the additional appropriation asked for.

Regarding Fort Duncan, the owner declined to sell for the amount appropriated. He subsequently offered to sell for \$20,000, and the Secretary of War asked Congress for the requisite appropriation to purchase at that price. Congress failed to grant the money.

In February, 1877, the owner increased his price to \$30,000 and declined to state the price at which he would sell after 30th of June of that year.

The United States now leases the property at the rate of \$200 per month, all the buildings and other improvements placed upon the land by the government having, under an old lease, reverted to the owner of the soil.

Regarding Fort McIntosh, the city of Laredo, soon after the passage of the act referred to, executed a deed conveying said site to the United States, but as the deed then prepared carried with it certain obligatory conditions upon the United States, the Department of Justice advised its non-acceptance.

The city authorities having subsequently executed a new deed, it was duly submitted to the War Department, with recommendation for further reference and action of Department of Justice.

The purchase of various other military sites in Texas has, within the past few years, been brought to the attention of Congress, but no satisfactory conclusions have been reached.

In a communication of April 21, 1879, to the Hon. S. B. Maxey, of the Senate, the honorable Secretary of War concurred with the General of the Army in recommending "that Congress appropriate a round sum, say \$200,000, to purchase sites already in existence in Texas, and for such others as may be deemed necessary for the defense of that frontier, at the discretion of the War Department."

POST CEMETERIES.

Authority has been granted, and instructions given by this office during the fiscal year for repairing the cemetery fences, erecting head-boards, &c., at Camp Grant, Ariz.; Fort Whipple, Ariz.; Fort Garland, Colo.; Ringgold Barracks, Tex.; Fort Sill, Ind. T.

Thirty bodies were removed from Old Fort Halleck, Wyoming, to the National Cemetery at Fort McPherson, Nebraska, and the remains of about the same number of officers and soldiers who fell in the battle of San Pascual in 1846 have been removed to a site on the military reservation at San Diego, Cal.

LOSSES BY FIRE.

Twelve fires have been reported during the fiscal year, viz:

July 9, 1878, at Fort McPherson, Nebr.; carpenter-shop, &c., destroyed.

July 13, 1878, at Fort A. Lincoln, Dak.; carpenter-shop, &c., destroyed.

October 27, 1878, at Fort Whipple, Ariz.; three sets of officers' quarters.

October 29, 1878, at Fort Dodge, Kans.; ice-house partially destroyed.

November 3, 1878, at Fort Leavenworth, Kans.; stable destroyed.

November 6, 1878, at Fort Missoula, Mont.; two sets officers' quarters destroyed.

December 8, 1878, at Fort McHenry, Md.; post-trader's store and house destroyed.

December 14, 1878, at Camp Independence, Cal.; one set officers' quarters destroyed.

December 24, 1878, at Fort Keogh, Mont.; two sets officers' quarters destroyed.

December 31, 1878, at Fort McHenry, Md.; one set officers' quarters partially destroyed.

January 4, 1879, at Chicago, Ill.; headquarters offices partially destroyed.

March 6, 1879, at Fort McHenry, Md.; battery B quarters partially destroyed.

RESERVATIONS DECLARED.

Four reserves have been declared during the fiscal year, viz:

Fort Meade, Dak., December 18, 1878.

Fort Lewis, Colo., January 28, 1879.

Camp Sheridan, Nebr., April 28, 1879.

Fort Missoula, Mont., June 10, 1879.

JAS. M. MOORE,
Quartermaster, U. S. A.

Brig. Gen. M. C. MEIGS,

Quartermaster-General, U. S. A., Washington, D. C.

No. 7.—*Report of Maj. J. M. Moore.*

QUARTERMASTER-GENERAL'S OFFICE,

Washington, D. C., August 1, 1879.

GENERAL: I have the honor to submit the following report of the operations of this office during the fiscal year ending June 30, 1879, so far as pertains to the business of claims under the act of July, 1864 (sec. 300, A, Revised Statutes U. S.), and certain miscellaneous claims, the duties of which were assigned to my charge and supervision by your letter of instructions of November 25, 1878.

The claims considered by this office, under the law referred to, are those of citizens in States not in rebellion, for quartermaster stores actually furnished to the Army of the United States during the rebellion.

The great bulk of the claims presented under the law come from citizens in the States of Maryland, West Virginia, Kentucky, Tennessee, and Missouri. The larger proportion come from citizens in the State of Kentucky and Tennessee. A considerable number have been presented by citizens in other States not named above, principally from those States bordering on or near the line of the contending armies during the war, or in and through which there were active military operations, conflicts, and movements.

When one of these claims is properly presented, the law requires the Quartermaster-General to cause it to be examined, and, "if convinced that it is just and of the loyalty of the claimant, and that the stores have been actually received or taken for the use of and used by the Army," then to report each case to the Third Auditor of the Treasury, with a recommendation for settlement.

On account of the lapse of time, death and removal of witnesses and other causes, the investigation and examination of these claims has become a very difficult, tedious and expensive operation.

The following statement shows the number of agents employed under the direction of the officers of the department charged with the investigation of these claims :

Names and stations of officers under whom agents are employed.	Number of agents.	Amount paid for services of agents.	Amount reimbursed to agents for expenses, and allowance for subsistence and lodging.	Total.	Remarks.
Col. Rufus Ingalls, assistant quartermaster-general, chief quartermaster Military Division Missouri, Chicago, Ill.	9	\$8,133 33	\$4,208 25	\$12,341 58	Period of service equivalent to 5 agents for the whole year and 1 agent for six months.
Lieut. Col. James A. Ekin, deputy quartermaster-general, depot quartermaster, Jeffersonville, Ind.	20	23,717 41	19,018 15	42,735 56	Period of service equivalent to 16 agents for the whole year.
Capt. A. F. Rockwell, assistant quartermaster, depot quartermaster, Washington, D. C.	4	6,350 00	5,031 12	11,381 12	3 agents employed during the whole year, and 1 agent employed from September 4, 1878, to July 30, 1879.
Total .....	.....	38,200 74	28,257 52	66,458 26	

The cost of transportation furnished in kind to agents employed as above amounted to \$709.33.

In addition to the agents employed to make the investigations of the

claims, the service of a number of employés is required to brief and arrange the proofs filed by the claimants, and the testimony collected and reports made by the officers and agents making the investigations, the cost of which during the fiscal year has amounted to the sum of \$33,657.19.

The foregoing statements show the total amount paid from the appropriation made for the support of the Army, for the fiscal year ending June 30, 1879, for services, &c., of employés engaged on these war claims, to be \$100,824.78.

The numbers, amounts, &c., of claims investigated by agents and reported upon by the officers charged with making the investigations during the past fiscal year are as follows:

Names of officers making reports.	No. of claims.	Total amount of claims.	Amount recommended for allowance by agents.
Col. Rufus Ingalls, assistant quartermaster-general, chief quartermaster Military Division of the Missouri, Chicago, Ill.	311	\$300,041 82	\$1,357 00
Lieut. Col. Jas. A. Ekin, deputy quartermaster-general, depot quartermaster, Jeffersonville, Ind.	1,938	1,413,709 49	175,269 51
Capt. A. F. Rockwell, assistant quartermaster, depot quartermaster, Washington, D. C.	211	201,863 53	43,907 71

The following statement shows the number and amounts of claims on hand July 1, 1878, the number and amounts of those received, and the number and amounts of those on which decisive action was taken during the fiscal year ending June 30, 1879, and of those remaining on hand.

Statement of claims under the act of July 4, 1864, chapter 240, section 300 A, Revised Statutes, in the Quartermaster-General's Office, for the fiscal year ending June 30, 1879.

	Number.	Amount.	Number.	Amount.
On hand July 1, 1878, which had previously been suspended or had received no decisive action ..	11,676	\$5,960,172 50		
Received during the year	1,640	961,420 00		
Total on hand and received			13,316	\$6,921,592 50
Decisive action taken during the year—				
Approved	635	121,568 26		
Reduction on claims approved		199,517 37		
Rejected	1,032	1,077,212 92		
Total on which final action has been taken ..			1,667	1,398,298 55
Remaining on hand July 1, 1879			11,649	5,523,293 95

Of the number of claims reported as remaining on hand at the close of the fiscal year, 1,446 were ready for the final action of the Quartermaster-General, and an additional number of 683 were completed and ready for my revision for submission for final action, making a total of 2,129 claims nearly or quite ready for final action, which was not had because of the press of other duties upon the Quartermaster-General and his office; this number added to the 1,667 claims, on which decisive action was taken during the year, shows a total number of 3,796 claims which received, or were in a condition to receive, final action during the fiscal year.

These 3,796 claims, amounting to \$3,186,658.55, show an average of about \$840 for each claim.

The total expense of the work on these claims during the fiscal year is shown by the following figures :

Amount paid for services of agents and clerks from appropriation for support of the Army, including transportation taken, furnished in kind.	\$100,825 52
Amount paid for services of clerks in this office from legislative, judicial, and executive appropriation.....	22,000 00
Total	122,825 52

These figures show the average cost of investigating and preparing 3,796 claims, amounting to \$3,186,658.55, for final action during the fiscal year, to be about \$32.35 each.

It should, however, be taken into consideration in connection with the foregoing statement, showing the work performed and the cost thereof, that a large number of claims were investigated and passed in different stages of examination during the year, but had not reached a condition for final action by the Quartermaster-General; and it also should be remembered that much labor is expended by the clerical force of this office, engaged on the work of these claims, in answering the very heavy correspondence and many verbal inquiries from claimants, their attorneys and friends, relative to the condition of their claims, many of which have long since been finally acted upon by the Quartermaster-General. The time and service employed in such correspondence is very great and enters largely into the annual cost of the work on these claims.

In the annual report for the fiscal year ending June 30, 1878, submitted by my predecessor in charge of this branch of the office, Maj. R. N. Batchelder, a statement was made showing the number and amounts of the claims received, considered, &c., by this office under the provisions of the act of July 4, 1864, during each year since the passage of that act. I do not deem it necessary to repeat that whole statement here, but in order to bring the general information it furnishes up to the close of the fiscal year ending June 30, 1879, I have taken from that statement the total figures under the several headings and have added thereto the corresponding information as to claims received, considered, &c., during the past fiscal year, as follows, viz:

	Received.		Allowed.		Amount dis-allowed in claims on which allowance was made.	Rejected.	
	No.	Amount.	No.	Amount.		No.	Amount.
Prior to June 30, 1878.....	39,108	\$29,595,504 99	9,270	\$4,022,364 69	\$3,367,275 07	18,162	\$16,245,782 68
During fiscal year ending June 30, 1879.....	1,640	961,420 00	635	121,568 26	199,517 37	1,032	1,077,212 92
Total.....	40,748	30,557,014 99	9,905	4,143,932 95	3,566,792 44	19,194	17,322,995 60

By act of Congress approved March 3, 1879, sec. 3, it is provided "that all claims not presented and filed under said act (act of July 4, 1864), and the acts amendatory thereof, prior to the first day of January, anno Domini eighteen hundred and eighty, shall be forever barred."

There has been a very material increase of the number of claims filed since the passage of the act.

MISCELLANEOUS CLAIMS.

Other claims of a miscellaneous character, besides those presented under the act of July 4, 1864, have been received, examined and considered in this office under my direction during the fiscal year.

These miscellaneous claims consist principally of charges for quartermasters' stores, covered by regular certified vouchers, presented to this office and the Third Auditor of the Treasury, by whom they are referred to the Quartermaster-General for examination, and on such information from the records and files of this office as can be furnished, they are considered and disposed of by the accounting officers of the Treasury, without reference to the provisions of the act of July 4, 1864.

A number of these miscellaneous claims are of that class, the settlement of which is provided for by the act of March 3, 1849 (sec. 3484, Revised Statutes), for horses and other means of transportation lost in the military service, which are referred to the Quartermaster-General for investigation, and they are investigated by the agents engaged on similar work under the act of July 4, 1864.

The total number of these miscellaneous claims received during the fiscal year ending June 30, 1879, is 123, amounting to \$18,072.56, and the total number and amounts considered and acted on are as follows: 181 claims, amounting to \$25,063 64, referred to the Third Auditor of the Treasury for action, and 4 claims, amounting to \$3,725.25, referred to other departments of the government, as properly pertaining thereto.

I am, very respectfully, your obedient servant,

JAS. M. MOORE,
Quartermaster, U. S. A.

The QUARTERMASTER-GENERAL, U. S. A.

No. 8.—*Report of Capt. A. F. Rockwell, in charge of National Cemeteries.*

OFFICE OF NATIONAL CEMETERIES,
Washington, D. C., August 26, 1879.

GENERAL: I have the honor to submit the following report in regard to the national military cemeteries for the fiscal year ending on the 30th day of June, 1879:

There were, at the close of the fiscal year, 79 national cemeteries; 27 first-class, 17 second-class, 14 third-class, and 21 fourth-class. To this number, one has since been added. General Order 78, Adjutant-General's Office, August 1, 1879, announced the Custer battle-field, on the Little Big Horn River, Montana Territory, as a national cemetery. It is proposed to gather the remains of the soldiers now buried there into a vault, and over this erect, on a high mound, a massive granite monument, which has already been prepared at Mason, N. H., and ordered shipped to Montana. On the sides of the shaft of this monument are inscribed the names of those who fell in the fight with the Sioux Indians on the 25th and 26th of June, 1876.

On July 1, 1878, there were 68 superintendents. During the year 10 were appointed, while 3 died, 3 resigned, and 1 was discharged. There were, therefore, on June 30, 1879, 71 superintendents in service.

One superintendent, Henry Fowler, in charge of the Chalmette Cemetery, died of the yellow fever at New Orleans, La. One of the civil engineers of the department, Mr. S. M. Robbins, also fell a victim to the

disease at Baton Rouge, La. In the light of this experience, therefore, and in view of the recurrence of the epidemic at Memphis this year, it has been ordered that upon its approach in the vicinity of any of the national cemeteries, the superintendent shall be ordered to some safe place within reasonable distance; such a course being prompted by the dictates of humanity, no less than by regard for the superintendents, all ex-soldiers, whose lives have heretofore been imperilled on the field of battle. Thus far it has been necessary to move only one superintendent from his station—Memphis. He has gone to Nashville.

There were interred in the national cemeteries, according to the June reports of the superintendents, 318,455 bodies; 170,960 known, and 147,495 unknown. These are buried in the different States as follows :

Number of cemeteries.	Name of State.	Known.	Unknown.	Number of cemeteries.	Name of State.	Known.	Unknown.
2	New York	6, 771	76	2	Texas	1, 716	1, 546
2	New Jersey	142	2, 651	3	Arkansas	4, 397	4, 270
4	Maryland	7, 001	2, 180	7	Tennessee	32, 272	24, 704
2	Pennsylvania	3, 847	1, 636	6	Kentucky	7, 925	2, 508
2	District of Columbia	5, 356	288	2	Indiana	2, 824	712
1	West Virginia	634	620	3	Illinois	3, 792	3, 085
17	Virginia	35, 512	38, 233	2	Missouri	9, 762	4, 031
4	North Carolina	3, 603	15, 060	2	Kansas	1, 209	1, 074
2	South Carolina	4, 947	7, 292	1	Iowa	610	21
2	Georgia	20, 060	3, 922	1	Indian Territory	212	2, 212
1	Florida	791	657	1	Nebraska	149	291
1	Alabama	751	112	1	City of Mexico	254	750
3	Mississippi	5, 992	19, 404		Total	170, 960	147, 495
4	Louisiana	10, 431	10, 160				

The above does not include interments in post and private cemeteries

The graves, except in case of prisoners of war and civilians, are marked with durable headstones, of marble or granite, appropriately inscribed.

By the act of February 3, 1879, Congress authorized the erection of headstones at the graves of Union soldiers interred in private, village, or city cemeteries. Proposals for the work were invited on the 31st day of March, 1879, and the bids were opened by the Quartermaster-General on the 16th of June last. The lowest offer for furnishing and erecting the stones was that of A. Deane, of Atchison, Kans., \$2.20 per stone, but his bid was informal and, being unaccompanied by a guaranty, was thrown out after allowing him a reasonable time to furnish some evidence of his responsibility. A portion of the work—the greater portion—was then awarded to D. W. Whitney, of Troy, N. Y., at prices ranging from \$1.99 to \$2.38. The other portion was awarded to S. G. Bridges, of Keokuk, Iowa, at \$2.25 for the State of Ohio, and \$2.60 for the remainder. Under these contracts, if carried out, the price for all the stones will, it is estimated, average about \$2.28 per stone, which, taking into consideration all the difficulties of the work, is a very low figure.

Immediately after the passage of the act referred to, circulars and notices were prepared giving information of the provisions of the law, and these were distributed and published throughout the country through the means of the press and post-offices. Thousands of applications have been received and numbers continue to reach this office daily. The labor of recording, verifying, and arranging them being, of course, very great, will consume much time. It will not, therefore, be practicable to furnish any of the stones during the present year, but it

is hoped to have the lists ready for the contractors in time for them to commence active operations next spring.

The stones will be of the same dimensions as those required for the national cemeteries north of Washington, except that they will be but half the thickness, two inches. The company and regiment of the deceased will be added to the inscription as a means of closer identification.

The work at the national cemeteries has, during the year, been performed in a satisfactory manner, and every effort has been made to keep these places in the best possible condition. At the larger cemeteries, such as Arlington, Chattanooga, Nashville, Vicksburg, Jefferson Barracks, &c., judicious improvements can, of course, always be made. These it is purposed to add from time to time as means are available. During the past year contracts were made for the erection of massive stone arches, similar to the one at Arlington, for the cemeteries at Vicksburg and Chattanooga. The Vicksburg arch will shortly be completed. On these arches will be inscribed the name of the cemetery, date of establishment, and number of soldiers buried within the inclosure.

The columns of the portico of the old War Department building have been taken to Arlington, and are erecting at the northeast and center entrances to that cemetery on the east front. The following inscription is to be cut on the frieze: "Six columns erected in the portico of the War Office, Washington, in 1818, were, on the demolition of that building in April, 1879, transferred to the gateways of this Arlington national military cemetery."

The Arlington Cemetery is perhaps as great an object of interest to the general visitor to the national capital as any other public institution. It is not too much to say, I think, that it is kept in as good condition as any of the public grounds in or near the city of Washington. It is a matter of considerable regret, therefore, that the approach to it from the Aqueduct Bridge is so bad. I venture, therefore, to renew the recommendation contained in my last annual report that a special appropriation be asked of Congress to improve this road. For the Vicksburg Cemetery an entirely new road was authorized to be constructed; but in this instance it will only be necessary to grade and drain the road already used.

In connection with the Vicksburg road I will here state that the money allowed for this work, \$7,000, has been expended, and the road has been about half finished. The full amount asked for in the original estimate will be required, that is, \$6,000 more. That the work already done may be of some practical benefit, it is desirable that it be completed as early as possible.

The grounds at Chattanooga, Andersonville, and Nashville have been greatly improved during the past year, and are now reported to present a very handsome appearance.

Superintendents' lodges at Baton Rouge, Port Hudson, Andersonville, Fort Gibson, Fort McPherson, and Beverly, and inclosing walls at Baton Rouge, Andersonville, Fort Gibson, Fort McPherson, and Grafton have been completed since the date of my last annual report.

A rostrum for the use of speakers on Decoration Day has been erected at each of the following-named cemeteries: Chalmette, La., Vicksburg, Miss., Chattanooga and Knoxville, Tenn., Antietam, Md., Gettysburg, Pa., and Jefferson Barracks, Mo. Vines have been planted around them to afford shade and to add to their appearance.

The sundry civil bill, approved June 20, 1878, contained a clause appropriating the sum of \$1,500 for the care and protection of the

Confederate cemetery on Johnson's Island, Ohio, with a proviso, however, that the title to the land should be transferred to the United States before expending any of the money. No provision was made for the purchase of the property, and the owner declines to make it a gift to the government, except under the following conditions, which it was not deemed proper to accept without the express sanction of Congress, namely: 1. That if, at any time, the government should cease to keep the lot in good condition, or cease to use it for cemetery purposes alone, it should revert to him. 2. That some one to be designated by himself, his heirs, or assigns, should be appointed to have charge of it at all times.

The owner has been asked to name a sum for which he would sell the lot, free of all conditions, but has not responded. It is, therefore, assumed that he does not wish to part with the property except under the stipulations named. The matter is therefore brought to notice for such additional legislation in the premises as may be deemed necessary.

The following is a summary of the expenditures for the national military cemeteries during the past fiscal year :

Walls and lodges.....	\$61,716 24
Rent of quarters.....	664 00
Outhouses and greenhouses.....	14,936 55
Trees and plants.....	1,813 75
Employés.....	32,085 80
Drainage.....	1,498 84
Tools, stores, and office furniture.....	7,045 44
Improvements of grounds.....	16,013 57
Flagstuffs and water supply.....	2,335 13
Purchase of land, examination of titles, &c.....	652 25
Interments, advertising, printing, &c.....	1,378 90
	<hr/>
Total.....	140,140 47

Very respectfully, your obedient servant,

A. F. ROCKWELL,

Captain and A. Q. M., U. S. A., in charge of National Cemeteries.

The QUARTERMASTER-GENERAL, U. S. A.

A.—Statement of disbursements of appropriations for national cemeteries during fiscal year ending June 30, 1879.

Name of cemetery.	Walls.				Lodges.			Rent of quarters.	Out-houses (sheds, stables, &c.).	Greenhouses.	Trees, plants, &c.
	Construction.	Coping and guttering.	Repair.	Gates.	Construction.	Addition.	Repair.				
Annapolis, Md.....			\$149 60	\$120 00		\$179 20		\$34 00	\$375 00		\$5 00
Alexandria, La.....	\$993 17				\$1,637 91		\$10 00	8 00			20 00
Alexandria, Va.....					1,244 00			81 00	17 50		
Andersonville, Ga.....	5,889 72				2,400 00						
Antietam, Md.....							6 00		1,730 00		50 00
Arlington, Va.....			113 05	3,343 73			332 79		711 78	\$44 05	422 28
Ball's Bluff, Va.....											
Barrancas, Fla.....							83 25				60 75
Baton Rouge, La.....	6,742 90				2,228 55		1 75	60 00	625 25		
Battle Ground, D. C.....									10 00		
Beaufort, S. C.....								55 00			
Beverly, N. J.....					1,969 00			54 00	264 50		34 50
Brownsville, Tex.....	486 50						20 00				60 00
Camp Butler, Ill.....			189 17	8 00			21 15				1 50
Camp Nelson, Ky.....				15 00							
Cave Hill, Ky.....			43 00								
Chalmette, La.....							11 50				2 35
Chattanooga, Tenn.....	3,804 54	\$344 01					4 00		1,518 75		112 20
City Point, Va.....			158 63				24 00		1,276 00		80 45
Cold Harbor, Va.....			49 15						374 00		40 00
Corinth, Miss.....							16 70				43 00
Crown Hill, Ind.....											20 00
Culpeper, Va.....							66 55				5 00
Cypress Hills, N. Y.....							29 00				
Danville, Va.....							10 00				
Fayetteville, Ark.....				10 00							15 00
Fredericksburg, Va.....								57 20			34 80
Finn's Point, N. J.....			99 37					2 80			3 07
Florence, S. C.....											
Fort Donelson, Tenn.....											
Fort Gibson, Ind. Ter.....	4,898 35				3,492 63		57 65		117 00		123 20
Fort Harrison, Va.....							21 50				
Fort Leavenworth, Kans.....			10 00				80 17				15 00
Fort McPherson, Nebr.....	5,186 90				3,770 00		78 07		237 80		69 96
Fort Scott, Kans.....											
Fort Smith, Ark.....											
Grafton, W. Va.....	4,437 33		15 59				30 00		8 75		

Glendale, Va											4 00
Gettysburg, Pa							42 30		1,636 76		45 00
Hampton, Va							52 34		600 00	32 50	96 75
Jefferson Barracks, Mo									1,300 95		50 52
Jefferson City, Mo		93 00					65 60				
Keokuk, Iowa							15 90				
Knoxville, Tenn									1,452 00		
Laurel, Md											
Lebanon, Ky							5 00				
Little Rock, Ark			78 00				12 00				25 00
Logan's Cross-Roads, Ky							4 00				
Loudon Park, Md								180 00			
Marietta, Ga									398 50		
Memphis, Tenn							4 50				31 87
Mobile, Ala		13 25					11 75				
Mound City, Ill											
Nashville, Tenn							6 50				128 50
Natchez, Miss		116 80									
New Albany, Ind											4 00
New Berne, N. C			2 50				30 50				
Philadelphia, Pa								192 00			84 30
Pittsburg Landing, Tenn											
Poplar Grove, Va							7 00				
Port Hudson, La					2,733 83						58 75
Raleigh, N. C			3 25								
Richmond, Va							62 00		332 00		9 00
Salisbury, N. C											
San Antonio, Tex					1,044 40						
Staunton, Va											
Seven Pines, Va							10 00				
Springfield, Mo							17 25				4 00
Soldiers' Home, D. C							3 50				5 00
Stone's River, Tenn		397 10					234 65		35 00		
Vicksburg, Miss			1,500 00						265 00		19 00
Wilmington, N. C									1,558 45		
Winchester, Va		156 25									
Yorktown, Va									15 00		30 00
City of Mexico, Mexico											
Danville, Ky											
Elmira, N. Y											
Lexington, Ky											
Carlisle, Pa											
Baxter Springs, Kans											
Brattleboro, Vt											
Camp Chase, Ohio											
Miscellaneous											
Total	32,439 41	344 01	1,603 96	5,080 48	20,520 32	179 20	1,548 87	604 00	14,859 99	76 55	1,813 75

Name of cemetery.	Employés.	Drainage.	Barrack and office furniture.	Tools and miscellaneous stores.	Improvement of grounds.	Flagstaffs and monuments.	Water supply.	Purchase of land, ex-aming titles, &c.	Interments.	Advertising and printing.	Total.
Annapolis, Md.....	\$104 25			\$18 95	\$149 37		\$37 50				\$1,172 87
Alexandria, La.....	181 00			35 60	10 00	\$10 00	15 00				2,920 68
Alexandria, Va.....	420 00			53 80	2 10		50 00				1,868 40
Andersonville, Ga.....	1,174 23	\$43 50		17 90	620 41	223 00	12 60				10,381 36
Antietam, Md.....	641 16			50 73	81 50						2,559 39
Arlington, Va.....	4,378 04	1,141 47		760 26	7,384 52	366 50	74 50				19,073 57
Ball's Bluff, Va.....	25 00			3 00							23 00
Barrancas, Fla.....	366 50			11 20	190 75						712 45
Baton Rouge, La.....	316 00			18 01	384 00	14 50		\$30 00			10,420 96
Battle Ground, D. C.....	240 00			15 81	50 00	157 87					473 68
Beaufort, S. C.....	455 92			55 01							565 93
Beverly, N. J.....	5 00		\$11 50	37 63	96 85						2,472 98
Brownsville, Tex.....	250 00			23 23	146 77						986 50
Camp Butler, Ill.....	368 50			38 88							627 20
Camp Nelson, Ky.....	125 00			96 25							236 25
Cave Hill, Ky.....	17 33										74 18
Chalmette, La.....	847 50			81 48	233 90		3 00		\$492 36		3,293 19
Chattanooga, Tenn.....	1,356 08			43 29	767 42						7,695 79
City Point, Va.....	377 50			50 30	188 05						1,188 48
Cold Harbor, Va.....				18 10		10 00					120 25
Corinth, Miss.....	560 25			27 04	353 35						957 34
Crown Hill, Ind.....											20 00
Culpeper, Va.....	236 28	35 00	5 25	41 75	6 00						395 83
Cypress Hills, N. Y.....	73 50			54 98	10 00	10 00			42 00		219 48
Danville, Va.....	22 12		6 00	16 05		6 00					60 17
Fayetteville, Ark.....	130 00	33 60		47 74	95 00	10 00	60 00				401 34
Fredericksburg, Va.....	362 32			76 65	97 10	100 00					728 07
Finn's Point, N. J.....			10 00	72 96		25 00					213 20
Florence, S. C.....	83 25			67 62							140 87
Fort Donelson, Tenn.....	97 75			51 93	26 00						175 68
Fort Gibson, Ind. Ter.....	155 28	45 27	32 50	16 77	265 30	12 19	204 00				9,420 14
Fort Harrison, Va.....	293 33			11 70		10 00					336 53
Fort Leavenworth, Kans.....	309 74	43 00		33 47							491 38
Fort McPherson, Nebr.....	289 64			45 95			253 00		95 00		9,954 36
Fort Scott, Kans.....	166 92			41 90	353 40						632 18
Fort Smith, Ark.....	297 00			13 05	31 95	25 00					372 00
Grafton, W. Va.....	231 25			15 00	647 50			202 25			5,587 67

Glendale, Va	260 00			41 05	5 00						310 05
Gettysburg, Pa	762 33			117 05	267 75						2,871 19
Hampton, Va	620 00			27 32	65 40						1,504 31
Jefferson Barracks, Mo	817 99		1 78	49 97	222 33			10 00			2,502 84
Jefferson City, Mo	25 50			9 05	126 76			59 30			319 91
Keokuk, Iowa	240 00	12 50		83 86	45 25						397 51
Knoxville, Tenn	124 50			21 60	150 00						1,748 10
Laurel, Md	30 00				5 87						35 87
Lebanon, Ky	50 25			14 10							69 35
Little Rock, Ark	360 00			23 00							498 00
Logan's Cross-Roads, Ky	56 25			6 50							66 75
Loudon Park, Md				14 75	43 13						237 88
Marietta, Ga	688 12			54 43		200 00	23 00				1,364 05
Memphis, Tenn	1,018 50			50 29		7 25					1,112 41
Mobile, Ala	121 99			28 83		12 00					187 82
Mound City, Ill	279 00			45 86		70 00					394 86
Nashville, Tenn	1,349 00			36 12	215 00						1,735 12
Natchez, Miss	681 34			24 00			4 15				826 29
New Albany, Ind	115 00			1 00				14 00			134 00
New Berne, N. C	111 33			111 10	83 50	100 00			7 00		338 93
Philadelphia, Pa	138 75			7 95	146 25						676 25
Pittsburg Landing, Tenn	277 92			26 65	6 00			22 12			332 69
Poplar Grove, Va	160 00			36 32	83 98			6 00			293 30
Port Hudson, La	212 50			82 30	516 00						3,603 38
Raleigh, N. C	140 00			15 25		8 00					166 50
Richmond, Va	247 50	30 00		43 83	197 15	5 00	16 00				942 48
Salisbury, N. C	245 34			9 40							254 74
San Antonio, Tex	63 20			66 70							1,174 30
Staunton, Va				8 55	12 50	20 00	15 00				66 05
Seven Pines, Va				40 95	8 50						70 70
Springfield, Mo	140 00			11 80		4 65	8 00				172 95
Soldiers' Home, D. C	473 75	114 50		39 45	584 10		5 50				1,252 30
Stone's River, Tenn	451 50			26 80			10 00				1,404 05
Vicksburg, Miss	2,144 66			78 07	967 86		16 00				6,265 04
Wilmington, N. C	29 78			22 44	20 00		4 50	381 50	46 00		504 22
Winchester, Va	120 00			7 00	50 00						378 25
Yorktown, Va	38 25										61 65
City of Mexico, Mexico	1,100 00			18 40		5 00					1,211 00
Danville, Ky	58 33			111 00							58 33
Elmira, N. Y	50 00			15 00							65 00
Lexington, Ky				8 67							8 67
Carlisle, Pa	90 00										90 00
Baxter Springs, Kans								1 50			1 50
Brattleboro, Vt	25 00										25 00
Camp Chase, Ohio								30 00			30 00
Miscellaneous	3,209 98			3,485 01						\$703 54	7,398 53
Total	32,085 80	1,498 84	67 03	6,978 41	16,013 57	1,416 11	919 02	652 25	675 36	703 54	140,140 47

Respectfully submitted.

A. F. ROCKWELL,
Captain and Assistant Quartermaster, U. S. A.

REPORT OF THE COMMISSARY-GENERAL OF
SUBSISTENCE.

REPORT

OF THE

COMMISSARY-GENERAL OF SUBSISTENCE.

WAR DEPARTMENT,
OFFICE COMMISSARY-GENERAL OF SUBSISTENCE,
Washington, D. C., October 9, 1879.

SIR: In compliance with the instructions contained in circular from the Adjutant-General of the Army, dated September 6, 1879, I have the honor to submit the following report of the operations of the Subsistence Department for the fiscal year ending June 30, 1879, with such remarks and recommendations in connection therewith as are thought to be for the best interests of the government and the Army.

RESOURCES AND EXPENDITURES.

The following statement exhibits the aggregate fiscal resources and expenditures of the department for the year mentioned, and the balances remaining unexpended at the close of the fiscal year:

RESOURCES.

Amounts in the Treasury to the credit of appropriations of the Subsistence Department on June 30, 1878, as follows:		
Subsistence of the Army, 1877.....	\$4,126 11	
Claims "for quartermaster stores and commissary supplies, act July 4, 1864," per act March 11, 1878, being portion for "commissary" supplies.....	67 55	
Claims "for quartermaster stores and commissary supplies, act July 4, 1864," per act April 30, 1878, being portion for "commissary" supplies.....	10 50	
	\$4,204 16	
Amount to the credit of officers of the Subsistence Department, and of officers doing duty in the Subsistence Department with the Treasurer, assistant treasurers, and designated depositories, and in their personal possession, on same date, as follows:		
Subsistence of the Army, 1878.....		161,561 02
Amount deposited to the credit of the Treasurer United States and in process of cover into the appropriation on June 30, 1878, since covered in, as follows:		
Subsistence of the Army, 1878.....		111 84
Amounts appropriated for the Subsistence Department for the fiscal year ending June 30, 1879, as follows:		
Subsistence of the Army, 1879, act April 30, 1878....	\$300,000 00	
Subsistence of the Army, 1879, act June 18, 1878....	2,015,000 00	
Commutation of rations to prisoners of war in rebel States, per act June 14, 1878.....	1,348 75	
Claims for "quartermaster's stores and commissary supplies, act July 4, 1864," per act March 3, 1879, being the portion for "commissary" supplies.....	10,152 28	
Miscellaneous claims audited by Third Auditor under fourth section act June 14, 1878, per act March 3, 1879, being portion for "commissary" supplies, &c.	7,545 25	
	2,334,046 28	

Amounts allotted by the Secretary of War to the Subsistence Department for the subsistence of prisoners at military prison, Fort Leavenworth, and for oils and wicking, for the fiscal year 1879:

Support of the military prison, Fort Leavenworth, Kansas, 1879... \$22,937 00
Amount transferred to the Subsistence Department by the Quartermaster's Department for above purposes:

Support of the military prison, Fort Leavenworth, Kansas, 1879... 2,036 43
Amounts refunded to the appropriations of the Subsistence Department on the books of the Treasury during the fiscal year 1879, as follows:

To the appropriation, Subsistence of the Army, 1876:
On account of stoppage of pay of officers... \$6 97
On account of loss of subsistence stores in transportation 45 81

\$52 78

To the appropriation, Subsistence of the Army, 1877:
On account of stoppage of pay of officers... 77 64
On account of loss of subsistence stores in transportation 77 62

155 26

To the appropriation, Subsistence of the Army, 1878:
By the Pay Department:
On account of tobacco sold to enlisted men during the fiscal year 1878..... 23,216 13
On account of subsistence stores sold to officers and enlisted men on credit during the fiscal year 1878..... 207 61
On account of subsistence stores lost by a commissary-sergeant during the fiscal year 1878..... 210 66

By the Quartermaster's Department:
On account of purchase of beef cattle by that department during the fiscal year 1878 183 12
On account of subsistence stores lost in transportation during the fiscal year 1878 426 00

By the Interior Department:
On account of subsistence stores furnished Indians during the fiscal year 1878 826 11

Deposits by officers of the Army:
On account of sales at auction, &c., during the fiscal year 1878 48 38
On accounts of sales to civilian employes during the fiscal year 1878..... 49 92
On account of errors in accounts pertaining to fiscal year 1878..... 22 88
Of unexpended balances pertaining to fiscal year 1878..... 3,481 91
Transfers, &c., on settlement of officers' accounts pertaining to the fiscal year 1878 69 19

28,741 91

To the appropriation, Subsistence of the Army, 1879:
By the Pay Department:
On account of tobacco sold to enlisted men during the fiscal year 1879..... 98,872 69
On account of subsistence stores sold to Indian scouts, &c., during the fiscal year 1879 427 44
On account of subsistence stores sold to officers and enlisted men on credit during the fiscal year 1879..... 47 99
By the Quartermaster's Department:
On account of subsistence stores lost in transportation during the fiscal year 1879 235 99

By the Interior Department:

On account of subsistence stores furnished Indians during the fiscal year 1879 \$664 23

By deposits by officers of the Army:

On account of sales to officers and to civilian employes during the fiscal year 1879 275 65

On account of sales of condemned stores at auction, &c., during the fiscal year 1879 155 92

In settlement of accounts during the fiscal year 1879 233 25

\$100,913 16

\$129,863 11

Amounts received by officers of the Subsistence Department and by officers doing duty in the Subsistence Department, from sales of subsistence stores, to the following purchasers during the fiscal year 1879, and taken up for immediate disbursement under the appropriation, Subsistence of the Army, 1879:

Sales to officers of the Army, \$425,687.64; to enlisted men, \$326,008.41; to civilian employes, \$9,080.94; to naval officers, \$2,044.69; to civilian engineers, \$132.86; to the Engineer Corps, \$523.63; to Indian agents, \$1,017.67; to employes of Indian agents, \$213.73; to Soldiers' Home, \$351.98; to superintendents of national cemeteries, \$111.38; to steamers, \$463.08; to United States military prison, Fort Leavenworth, Kansas, \$14,886.41; to United States marshals, \$90.57; of condemned stores at auction, \$8,621.45; of boxes, barrels, &c., \$1,747.69; of garden-seeds and agricultural implements, \$416.22; total 791,403 63

Amount taken up by officers doing duty in the Subsistence Department on account of stores lost, damaged, &c., and in correction of errors in their accounts during the fiscal year 1879: Subsistence of the Army, 1879 1,637 64

Total resources 3,447,801 11

EXPENDITURES.

Amounts expended on the books of the Treasury from the appropriations of the Subsistence Department during the fiscal year 1879, as follows:

From Subsistence of the Army, 1877:
 In settlement of the accounts of officers \$55 63
 In payment of liabilities incurred in fiscal year 1877 710 33
 \$765 96

From Subsistence of the Army, 1878:
 In settlement of the accounts of officers 5 80
 In payment of liabilities incurred in the fiscal year 1878 20,988 12
 Advances to officers for disbursement (but refunded as per contra) 3,481 91
 24,475 83

From Subsistence of the Army, 1879:
 In payment of liabilities incurred in fiscal year 1879 223 74
 From claims for quartermaster's stores and commissary supplies (act July 4, 1864), per act April 30, 1878 10 50
 From claims for quartermaster's stores and commissary supplies (act July 4, 1864), per act March 3, 1879 10,152 28
 From commutation of rations of prisoners of war in rebel States, per act June 14, 1878 1,348 75
 From miscellaneous claims audited by Third Auditor, under fourth section act June 14, 1878, per act March 3, 1879 7,545 25

Amounts disbursed by officers of the Subsistence Department and officers doing duty in the Subsistence Department during the fiscal year 1879, as follows:

Subsistence of the Army, 1878 157,837 11
 Subsistence of the Army, 1879 2,784,637 06

Amounts dropped by officers doing duty in the Subsistence Department in correction of errors in their accounts during the fiscal year 1879, . . .	\$222 17
Amount expended for the subsistence of military prisoners at United States military prison Fort Leavenworth, Kans., during the fiscal year 1879:	
Support of the United States military prison, Fort Leavenworth Kans., 1879	12, 632 68
Amount refunded to the Treasury near close of fiscal year 1879, but not carried to the credit of the appropriation by June 30, 1879:	
Subsistence of the Army, 1879	6 00
Amounts carried to the surplus fund on June 30, 1879:	
Subsistence of the Army, 1876	\$52 78
Subsistence of the Army, 1877	3, 515 41
	3, 568 19
Total expenditures	3, 003, 475 52

BALANCES UNEXPENDED.

Amounts in the Treasury to the credit of appropriations of the Subsistence Department on June 30, 1879, as follows:	
Subsistence of the Army, 1878	\$7, 747 99
Subsistence of the Army, 1879	\$2, 014 42
Support of United States military prison Fort Leavenworth, Kans., 1879	10, 801 50
Claims for quartermaster's stores and commissary supplies, act July 4, 1864, per act March 11, 1878	67 55
	20, 631 46
Amounts to the credit of officers of the Subsistence Department and of officers doing duty in the Subsistence Department with the Treasurer, assistant treasurer, and designated depositories, and in their personal possession, on June 30, 1879, as follows:	
Subsistence of the Army, 1878	\$244 00
Subsistence of the Army, 1879	421, 423 85
Support of the United States military prison Fort Leavenworth, Kans., 1879 (including Treasury drafts for \$575 <i>in transitu</i>) on June 30, 1879	1, 539 25
	423, 207 10
Amount in hands of representatives of deceased officers to be collected:	
Subsistence of the Army, 1878	109 84
Amount stolen in October, 1878, to be collected from the officer responsible:	
Subsistence of the Army, 1879	377 19
Total balances unexpended	444, 325 59

In connection with the subject of appropriations for subsistence of the Army, I desire to invite your special attention, and through you that of Congress, to the following note upon the estimate for appropriations for subsistence of the Army for the fiscal year ending June 30, 1881:

It is respectfully recommended that the appropriations for subsistence of the Army be made available from the passage of the act making the appropriation. For several years a portion of the appropriation (\$300,000) has been made available prior to the commencement of the fiscal year for the purchase of supplies intended for remote posts. Should the appropriation for the year be made available from the passage of the act making it, it will, it is believed, be in the interest of economy, by enabling the purchase and shipment not only of all stores for remote posts, which can be more economically shipped in the spring than after the 30th of June, but of those which should be shipped early in the spring, instead of the heat of summer, to avoid loss and transportation. In the act making appropriations for expenses of the Indian Department for the year ending June 30, 1880, it was provided "that so much of the appropriation * * * made as may be required to pay for goods and supplies * * * shall be immediately available."

CONTRACTS AND PURCHASES.

During the fiscal year ended June 30, 1879, 131 newspaper advertisements and 111 circulars and posters inviting proposals for subsistence

stores were reported to this office. There were, also, received during the same period 343 contracts for fresh meats, 89 contracts for miscellaneous articles, 30 contracts for complete rations for recruiting parties and recruits, and 1,860 contracts consisting of written proposals and acceptances.

It has been my intention that, as far as consistent with a due regard to economy and the procurement of stores of a proper quality, supplies should be purchased from producers and manufacturers or importers nearest the points of consumption. It may be that my wishes and instructions have not been entirely complied with in some cases, but as a rule the plan I have above indicated has been carried out.

In connection with the subject of points of procurement of supplies and the furnishing of supplies to posts, attention is invited to the following extracts from the annual reports of officers of the Subsistence Department for the last and previous years:

In the annual report of Maj. J. P. Hawkins, chief commissary of subsistence, Department of the Platte, for the year 1877, he states:

Fort Cameron, Utah, is * * * supplied from Omaha, except flour, vinegar, and vegetables; flour being purchased in the vicinity of the post, vinegar at Ogden, and vegetables in the vicinity of the post, and largely produced in company gardens.

Cheyenne Depot, Wyoming, on the line of the Union Pacific Railroad, 516 miles from Omaha, is used as a distributing depot. Large quantities of Colorado flour are purchased here for shipment to the different posts; also, potatoes and onions, and occasionally hard bread.

Camp Douglas, Utah, is * * * supplied from Omaha, except flour, dried peaches, salt, vinegar, and vegetables, which are purchased at Salt Lake City and Ogden.

In his report for the last fiscal year he states:

During the past year a mill has been started in the vicinity of Fort Brown, Wyoming. Samples of the flour and prices were furnished me and found satisfactory. The acting commissary of subsistence at Fort Brown was instructed to purchase some of the flour and report to the chief commissary of subsistence of the department about the 1st of September, 1879, as to the quality compared with flour heretofore furnished the post and the price at which it could be obtained.

Capt. J. H. Gilman, chief commissary of subsistence, Department of the Missouri, in his annual report for the last fiscal year, states:

As a rule, all posts in this department have been supplied in the manner described in my report of August 27, 1878, and the very small amounts of subsistence stores lost or spoiled at posts in this department during the last two years go to show the economy of often replenishing stores at posts by frequent shipments, instead of putting in supplies for six or eight months at a time, as was formerly the practice before the extension of the railroads. It has also the advantage of securing for the officers and men better food by sending fresh stores from month to month. * * *

There are now several very extensive packing-houses in this vicinity (at Kansas City and Atchison), which afford largely-increased facilities for purchasing all kinds of salt meats and at considerably lower prices probably than they could be purchased elsewhere and laid down here. The sugar-cured meats especially, which have been purchased here in the past year for the first time in very large quantities from packers located in this vicinity, have apparently given general satisfaction both as to price and quality.

The wheat crop of Kansas this year is very large, and large mills are constantly being erected, so that there is every prospect of an abundant supply of flour at low prices during the present year. All the flour purchased here is made from winter or fall wheat, and of excellent quality. A large portion of that purchased here is taken directly from the millers in the country between here and the posts, saving thereby something in price and considerable in transportation. Large quantities of excellent flour has for several years been taken at Junction City and Wichita.

On account of the reduction in cost of transportation and of some complaints still of New Mexican flour, it was thought advisable to supply the posts in New Mexico this present year with a large proportion of States flour than heretofore, and the chief commissary of subsistence of the district of New Mexico was so advised.

From his report of July 26, and indorsement thereon, this view is concurred in by both the district commissary of subsistence and district commander, both of whom evidently regarding an increase in quantity of States flour as very necessary.

The following is an extract from the report of the chief commissary of the District of New Mexico (Capt. F. F. Whitehead):

During the past fiscal year all States flour has been issued at the posts of Forts Union, Garland, and Lewis; and, owing to the fact that contracts for wagon transportation to the majority of posts in this district have been let from Las Vegas, N. Mex., the chief commissary of subsistence of the Department of the Missouri has decided to furnish, in future, all States flour for issue at Fort Marcy and half at all other posts; and beans and salt to all posts in the district where he can have them delivered from the depot at Fort Leavenworth at a less cost to the government than they can be purchased for in New Mexico. The increased allowance of States flour for issue will be a decided improvement, as it seems impossible to manufacture a good grade of flour in this Territory.

Capt. C. B. Penrose, chief commissary of subsistence, Department of Texas, states that—

The Texas flour has proved under their improved system of milling very satisfactory, and although not quite equal in whiteness to Saint Louis flour, makes when mixed equally good bread. * * * *

It is to be regretted that owing to the extreme drought the wheat crop is a failure in many parts of this State, and it is feared that many mills in the State will be unable to compete in the lettings for the coming year.

Capt. C. P. Eagan, chief commissary of subsistence, Department of Arizona, reports that—

Flour for issue is now purchased under contract for all the posts in the department, except for Forts Yuma and Mojave, which latter are supplied on requisition from the depot at San Francisco, as the government can lay down flour at those posts at less figures than the millers can deliver it from the grain-raising districts of the Territory. The flour procured under contract comes from Arizona and New Mexico, and is not equal to the California article.

The following table will indicate the average prices of the components of the ration in each year for the last three years:

Articles.	1877.	1878.	1879.
	Per pound, gallons, &c.	Per pound, gallons, &c.	Per pound, gallons, &c.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Pork	9.24	6.53	5.10
Bacon	10.93	8.74	6.68
Fresh beef	8.497	8.289	7.666
Salt beef	8.98	7.22	5.84
Flour	3.56	3.40	2.61
Hard bread	5.08	5.33	4.65
Cornmeal	1.71	1.61	1.51
Beans	3.26	3.74	2.91
Pease	3.68	3.80	3.32
Rice	6.85	7.12	7.08
Hominy	2.78	2.29	1.94
Coffee, green	21.48	20.56	16.25
Coffee, roasted	26.68	25.94	22.71
Sugar	10.60	9.55	8.27
Vinegar	23.45	21.44	18.87
Candles	16.12	15.47	14.36
Soap	6.06	5.68	5.21
Salt .....	.908	.891	.722
Pepper	27.01	25.14	21.34

It will be observed that the cost of supplies has been constantly diminishing since 1877, notably in the meat and flour components of the ration. The construction of railroads, the settlements in the vicinity of posts, the cultivation of lands adjacent thereto, and their utilization in feeding stock, have greatly reduced the cost of feeding the Army, by reducing the original cost of the stores and of transportation, and by avoiding the wastage and loss which formerly resulted from procuring

stores from remote points, transporting them long distances, and keeping them on hand in large quantities for long periods.

Attention is particularly invited to the interesting paper on the cattle and sheep interests of Wyoming and Colorado, prepared by Capt. W. H. Nash, commissary of subsistence, transmitted with this report, and which I request may be considered as a part hereof, and be published with it.

ISSUES TO INDIANS AND TRANSFER OF SUBSISTENCE TO INDIAN AGENTS.

The value of stores (cost of transportation added) issued to Indians and transferred to Indian agents during the fiscal year ending June 30, 1879, for which reimbursement has been requested through the Secretary of War, from the Indian Bureau, the date and place of issue or transfer, and to whom made, is presented in the following table:

Transfers of subsistence stores to the Indian Department and issues to Indians.

When issued.	Where issued.*	To whom issued.	Stores.	Transportation.	Total.	Remarks.
September, 1878.....	Camp near Pendleton, Oreg.....	Bannock and Piute prisoners.....	\$57 25	\$9 54	\$66 79	Not paid for.
January, 1879, to June, 1879.....	Vancouver Barracks, Wash.....	do.....	452 80	23 25	476 05	Do.
April and May, 1879.....	Fort Klamath, Oreg.....	do.....	150 52	42 30	192 82	Do.
Totals.....			600 57	75 09	735 66	
August, 1878, to February, 1879.....	Fort Harney, Oreg.....	Piute Indian prisoners.....	8,387 50	1,808 82	10,196 32	Not paid for.
August, 1878.....	Camp near Milhem Agency, Oreg.....	do.....	418 50		418 50	Do.
April, 1879.....	Fort Bidwell, Cal.....	do.....	64 23	15 05	79 28	Do.
Totals.....			8,870 23	1,823 87	10,694 10	
October, 1878, to May, 1879.....	Boise Barracks, Idaho.....	Weiser Indian prisoners.....	192 40	37 80	230 20	Not paid for.
December, 1878.....	Vancouver Barracks, Wash.....	Warm Spring Indian prisoners.....	23 53	2 57	26 10	Do.
October, 1878, to April, 1879.....	Fort Hall, Idaho.....	Shoshone and Bannock Indian prisoners.....	2,117 41	404 51	2,521 92	Do.
March, 1879, to June, 1879.....	Fort Clark, Tex.....	Lipan Indian prisoners.....	54 82		54 82	Do.
February and March, 1879.....	Fort Custer, Mont.....	Gros Ventres Indian prisoners.....	18 82	19 55	38 37	Do.
Totals.....			2,406 98	464 43	2,871 41	
July to October, 1878, and February to April, 1879.....	Ojo Caliente, N. Mex.....	Warm Spring Apache Indian prisoners.....	5,149 28	92 71	5,241 99	Not paid for.
November, 1878, to May, 1879.....	Fort Apache, Ariz.....	do.....	27 07	5 18	32 25	Do.
October and November, 1878.....	In the field, New Mexico.....	do.....	756 86		756 86	
Totals.....			5,933 21	97 89	6,031 10	
March, 1879, to May, 1879.....	Fort Omaha, Nebr.....	Ponca Indian prisoners.....	238 94	3 24	242 18	Not paid for.
May and June, 1879.....	Fort Reno, Ind. T.....	do.....	24 08	16 69	40 77	Do.
Totals.....			263 02	19 93	282 95	
July, 1878.....	Fort A. Lincoln, Dak.....	Cheyenne Indian prisoners.....	577 73	352 39	930 12	Not paid for.
November, 1878.....	Camp on North Smoky River, Kans.....	do.....	69 75		69 75	Do.
July, 1878.....	In the field, Dakota.....	do.....	623 17		623 17	Do.
July, August, and December, 1878.....	Fort Reno, Ind. T.....	do.....	9 45	5 90	15 35	Do.
October, 1878.....	In the field, Nebraska.....	do.....	42 00		42 00	Do.
August, 1878, to February, 1879.....	Fort Robinson, Nebr.....	do.....	3,195 10	887 79	4,082 89	Do.
September and October, 1878, and February, 1879.....	Fort Sidney, Nebr.....	do.....	1,409 99	85 39	1,495 38	Do.
February and March, 1879.....	Fort Leavenworth, Kans.....	do.....	74 45	46	74 91	Do.

November, 1878	Fort Dodge, Kans	do	429 82	8 40	438 22	Do.
Do	Fort Supply, Ind. T	do	333 26	44 10	377 36	Do.
Do	Fort Wallace, Kans	do	1, 173 04	16 12	1, 189 16	Do.
April, May, and June, 1879	Fort Keogh, Mont	do	1, 341 12	212 02	1, 553 14	Do.
Totals			9, 278 88	1, 612 57	10, 891 45	
October, 1878	Fort Bidwell, Cal	Bannock Indian prisoners	56 54	8 90	65 44	Paid for Feb. 20, 1879.
July, 1878, May and June, 1879	Fort Hall, Idaho	do	16 41	2 48	18 89	Not paid for.
July, August, and September, 1878	Boise Barracks, Idaho	do	203 85	89 19	293 04	Do.
September, 1878, to June, 1879	Fort Washakie, Wyo	do	1, 364 57	354 71	1, 719 28	Do.
September, October, and December, 1878	Fort Custer, Mont	do	123 56	149 52	273 08	Do.
September and October, 1878	Near Fort Keogh, Mont	do	116 75	17 84	134 59	Do.
August, September, and October, 1878	Fort Omaha, Nebr	do	33 19		33 19	Do.
September, 1878, to June, 1879	Fort Keogh, Mont	do	1, 926 97	373 50	2, 300 47	Do.
Totals			3, 841 84	996 14	4, 837 98	
July, August, and October, 1878	Fort Leavenworth, Kans	Nez Percé Indian prisoners	1, 110 54	5 11	1, 115 65	Do.
July, September, and November, 1878; April, May, and June, 1879	Fort Benton, Mont	do	78 44	22 21	100 65	Do.
July, August, and October, 1878	Fort Snelling, Minn	do	16 48	1 74	18 22	Do.
July, 1878, to March, 1879	Fort Lapwai, Idaho	do	257 42	147 71	405 13	Do.
September, 1878	Fort Shaw, Mont	do	38 47	12 76	51 23	Do.
November, 1878	Vancouver Barracks, Wash	do	17 60	39	17 99	Do.
Do	Near Pendleton, Oreg	do	7 74	1 32	9 06	Do.
Do	Alcatraz Island, Cal	do	18 57		18 57	Do.
Totals			1, 545 26	191 24	1, 736 50	
December, 1878	Fort Elliott, Tex	Destitute Pawnee Indians	19 34	12 06	31 40	Not paid for.
February, 1879	do	do	23 52	4 52	28 04	Paid for April 21, 1879.
June, 1879	Fort Supply, Ind. T	do	219 89	31 12	251 01	Not paid for.
Totals			262 75	47 70	310 45	
January, 1879	Fort Sidney, Nebr	Special Agent E. Seward	11 32	2 54	13 86	Not paid for.
Do	Camp Sheridan, Nebr	Special Agent J. R. O'Beirne	64 25	41 76	106 01	Do.
Do	Fort Robinson, Nebr	Acting Agent C. A. Johnson	18 96	4 49	23 45	Do.
February, 1879	do	Acting Agent J. R. O'Beirne	59 01	31 06	90 07	Paid for April 28, 1879.
August, 1878; March and April, 1879	Fort Ellis, Mont	Ten Days band of Bannocks	539 50	101 84	641 34	Not paid for.
July, 1878	Camp Mulhey, Mont	do	155 75		155 75	Paid for Feb. 17, 1879.
July and August, 1878	Fort Yates, Dak	Indian children of mission schools	49 78	18 90	68 68	Not paid for.
November, 1878	Camp Sheridan, Nebr	Red Cloud and party	32 53	4 99	37 52	Paid for Feb. 20, 1879.
Totals			931 10	205 58	1, 136 68	

Transfers of subsistence stores to the Indian Department, &c.—Continued.

When issued.	Where issued.	To whom issued.	Stores.	Transportation.	Total.	Remarks.
July, 1878.....	Fort Bidwell, Cal.....	Pi-Ute Indians.....	\$250 73	\$36 68	\$287 41	Paid for May 22, 1879. Not paid for. Do.
July, 1878, to May, 1879.....	Fort McDermitt, Nev.....	do.....	12, 446 42	2, 505 12	14, 951 54	
August and September, 1878...	Fort Bidwell, Cal.....	do.....	855 56	153 43	1, 008 99	
Totals.....	.....	.....	13, 552 71	2, 695 23	16, 247 94	
Grand totals.....	.....	.....	47, 546 55	8, 229 67	55, 776 22	

Grand totals brought forward.....\$47,546.55+\$8,229.67=\$55,776 22
 Amount received from Indian Department on account of above is..... 664 23

Balance due Subsistence Department.....: 55,111 99

It will be observed that the Subsistence Department has been reimbursed but little in excess of one per cent. of the value of the stores \$55,776.22, which have been issued and transferred, as appears from the above statement.

In order that the views of the Indian Department and this Bureau upon the subject of issues to Indian prisoners may be properly understood, attention is invited to the following communications and indorsement:

DEPARTMENT OF THE INTERIOR,
 OFFICE OF INDIAN AFFAIRS,
 Washington, April 21, 1879.

SIR: I have the honor to acknowledge the receipt, by reference from the department, of a letter of the honorable Secretary of War, dated April 14, 1879, inclosing one from R. Macfeely, Commissary-General of Subsistence, requesting you to cause the Subsistence Department to be reimbursed for all sums due on vouchers, for subsistence stores furnished to Indians, submitted to the department during the fiscal years 1878 and 1879.

In reply, I would state that this office is in receipt of a large number of vouchers for subsistence issued by the War Department to Indian prisoners during the fiscal years 1878 and 1879; but Congress has failed to make any appropriation to this office for the payment of said claims.

On examination of the estimates of appropriations required for the service of the military establishment under the War Department for the fiscal years 1878 and 1879, I find under the head of "Subsistence Department, subsistence of the Army," an estimate for 182,500 rations, at 24 cents per ration, for each year for prisoners of war (Indians), and in the acts making appropriations for the support of the Army for the fiscal years 1878 and 1879, in the section providing for the Subsistence Department, the following language is used: "For subsistence of regular troops, Indian scouts and guides, and Indian prisoners," &c., two million three hundred and seventy thousand dollars for 1878, and two million three hundred and fifteen thousand dollars for 1879. I am therefore of the opinion that Congress has made provision for the support of Indian prisoners in the Army appropriation bills for 1878 and 1879. There are no funds at the disposal of this office for the payment of the accounts presented, and the same will be held subject to the order of the honorable the Secretary of War.

Very respectfully,

E. J. BROOKS,
 Acting Commissioner.

HON. SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
 Washington, April 25, 1879.

SIR: I have the honor to acknowledge the receipt of your letter of the 14th instant, inclosing a communication from General R. Macfeely, Commissary-General of Subsistence, calling for reimbursement to the Subsistence Department for all sums due on vouchers for subsistence stores furnished to Indians, submitted to the department during the fiscal years 1878 and 1879.

In reply, your attention is respectfully invited to the inclosed copy of letter, dated the 21st instant, from the Commissioner of Indian Affairs, to whom the subject was duly referred.

Very respectfully,

C. SCHURZ, Secretary.

The Hon. SECRETARY OF WAR.

[First indorsement.]

WAR DEPARTMENT,
 OFFICE COMMISSARY-GENERAL OF SUBSISTENCE,
 Washington, May 9, 1879.

Respectfully returned to the honorable Secretary of War, with the recommendation that the Indian Department may be requested to reimburse the Subsistence Department the cost of the rations issued by it during the current fiscal year for the subsistence of whom by the Indian Department appropriations were made, whether the Indians were prisoners or not when the Subsistence Department made the issues.

The accompanying statement, marked A, will indicate that issues to the value of \$15,004.09 have been made during the current fiscal year to Indians not prisoners.

The statement marked B, that issues to the value of \$32,147.85 have been made to *Indians who were prisoners*.

While it is true that an estimate was submitted by this department for subsisting 500 Indian prisoners during the current fiscal year and an appropriation for the purpose made, it was not understood by me that this appropriation or any portion of it could be expended (unless the department was to be reimbursed) for subsisting Indians for the subsistence of whom by the Indian Department an appropriation had been or should be made; but it was intended for Indian prisoners for the subsistence of whom there was no other appropriation; in other words, it was not proposed by this department to ask that a double appropriation for the subsistence of any Indians be made, and it is respectfully submitted that this department should be reimbursed for the value of all issues made by it to Indians for the subsistence of whom an appropriation has been made and turned over to the Indian Department.

It is respectfully submitted that the cost of subsisting Indians is not legally transferred from the Indian to the War Department simply by the Indians becoming prisoners of war, and that the Indian Department cannot legally expend the money appropriated for the subsistence of such prisoners in subsisting other Indians, as appears to have been the case, if it has now no funds to pay for subsisting Indian prisoners for the subsistence of whom it had an appropriation.

With reference to the statement of the Acting Indian Commissioner that there are no funds at the disposal of that office for the payment of the accounts presented, it is respectfully suggested that, if the accounts are proper ones to be paid, Congress is now in session and appropriations for the purpose can be requested; in the mean time, I recommend that no further issues be authorized by the War Department to Indians for the subsistence of whom, under the direction of the Interior Department, an appropriation has been made, unless that department agrees to reimburse the Subsistence Department the cost of the rations issued.

R. MACFEELY,
Commissary-General of Subsistence.

Comment on the above is unnecessary. The papers submitted present the views of the Indian Department and of this office, with reference to reimbursement for the issues and transfers made, and exhibit the fact that a large amount justly due to this department by the Indian Department has not been paid.

In making my estimate for appropriation for the next fiscal year, I have included in the estimate for prisoners of war only Indians "for the subsistence of whom no other appropriation is made," being of the opinion, as stated in the indorsement above referred to, that it was not intended that "double appropriations" should be made for the same persons.

In addition to the issues and transfers for which reimbursement was requested, stores have been issued to Indians, and reimbursement not requested, as follows:

To friendly Indians.....	\$1,360 13
To destitute Indians.....	558 96
To Indians visiting posts under paragraphs 1202 and 1203, Revised Regulations, edition 1863.....	669 84

ISSUES TO VOLUNTEERS AND DESTITUTE PERSONS.

By reason of the necessities of the service and the demands of humanity, the following issues have been made during the fiscal year 1879:

	Rations.
To volunteers.....	1,744
To destitute citizens and citizen prisoners.....	3,379

On the 28th of September the Secretary of War authorized the issue of provisions to sufferers from the Deadwood fire, the issues to be limited to such quantities as could be spared from Fort Meade, without too far diminishing necessary supplies for that post, and to be continued only while it is impossible for the sufferers to procure stores elsewhere.

OIL.

The issues of oil for exterior illumination at the various posts under the provisions of General Orders No. 17, Headquarters of the Army, Adjutant-General's Office, February 8, 1870, amount to 5,771½ gallons for the fiscal year 1879.

On the 8th day of May, 1879, I recommended to the honorable Secretary of War, that the major-general commanding the Military Division of the Atlantic be instructed to convene a board of officers at Fort Columbus, New York Harbor, for the purpose of "fully examining into and reporting upon the subject of lighting company quarters with oil," and that the board "should consist of an inspector-general, a quartermaster, a commissary, a medical officer, and the commanding officer of Fort Columbus."

As this recommendation was not at first favorably considered, I renewed the application to the honorable Secretary of War on June 5, 1879, stating—

The subject of properly lighting company quarters so that a suitable place for instruction and recreation in the evening may be afforded enlisted men, and they thus be induced to spend their spare time in the evenings in their quarters instead of at questionable places of resort, has on several occasions been brought to my attention, and I wish to do all that I can to afford the means to effect such a desirable result. I do not believe such a result can be effected with the present allowance of candles, nor with any allowance of candles as cheaply as with oil.

The honorable Secretary of War reconsidered his decision after the receipt of the communication from which the above is an extract, and directed that a board should be ordered as originally requested.

The board was appointed by Maj. Gen. W. S. Hancock, commanding Military Division of the Atlantic, and consists of Col. N. H. Davis, inspector-general, Col. M. D. L. Simpson, Subsistence Department, Assist. Surg. J. P. Kimball, Capt. J. P. Sanger, First Artillery, and First Lieut. Charles Bird, Twenty-third Infantry.

It is understood that the board is making an exhaustive investigation of the subject referred to; and I trust that the result will be reached at an early date of lighting company quarters in such a manner as to secure the end sought by me in making my recommendations for the appointment of a board.

ARTICLES TO BE SOLD TO OFFICERS AND ENLISTED MEN.

I would respectfully renew the recommendation made in my last annual report :

That section 1144 Revised Statutes be so amended as to authorize the Commissary-General, with the approval of the Secretary of War, to designate the articles which shall be kept on hand by the Subsistence Department for sale to officers and enlisted men, and that sections 1299 and 1300 be amended accordingly.

The returns of the stores purchased and sold being examined in this office, the Commissary-General can readily determine which of the articles purchased is not in demand, or cannot be supplied without much loss to the government; and the wants of the officers and enlisted men can probably be more readily obtained by the Commissary-General, who is in constant correspondence with the officers performing subsistence duty at all posts, than by the inspector-general, who visit the posts at intervals.

In the act making appropriation for subsistence of the Army for the current fiscal year, it is—

Provided, That to the cost of all stores and other articles sold to officers and men, except tobacco, as provided for in section one thousand one hundred and forty-nine of the Revised Statutes, ten per centum shall be added to cover wastage, transportation, and other incidental charges.

I recommend that to the exception made, viz, tobacco, "provided for in section one thousand one hundred and forty-nine," there be added, sales made to company messes. Such stores are, as a rule, purchased from funds received by the companies from the sales of savings of the ration to the Subsistence Department, and as the department pays the companies only the cost of the stores it purchases from them, it is thought that it is hardly just to them to charge for supplies sold, to be used by the messes in lieu of the articles sold to the department, ten per centum in addition to their cost.

TOBACCO.

During the fiscal year ending June 30, 1879, returns received show that tobacco to the value of \$125,211.42 was supplied to enlisted men on tobacco returns.

In addition to the above, 28,927 $\frac{1}{4}$ pounds of chewing, and 37,276 $\frac{1}{2}$ pounds of smoking tobacco were sold to officers and enlisted men.

I deem it due to the enlisted men of the Army to especially invite your attention to the following extract from my last annual report, and to urge that the attention of Congress be invited to it:

From information received at this office, I am of the opinion that 16 ounces per month is not as much as a majority of enlisted men desire to purchase. I therefore recommend that the limit be increased by law to 24 ounces per month.

I also recommend that the law be further modified so as to allow the tobacco to be paid for upon its receipt, or, if not paid for, charged upon the pay-rolls of the soldier for the month in which the purchase is made.

SUPPLIES LOST IN TRANSPORTATION, AND CONDEMNED.

The value of the stores reported on returns for the year ending June 30, 1879, as lost in transportation and no one found responsible therefor, and as extraordinary wastage, &c., is.....	\$11,596 73
The value of supplies inspected and condemned during the same period was.....	\$21,819 80
From such of the above as were sold there was realized the sum of.....	2,777 37
Net loss to the government on account of supplies condemned.....	13,042 43
Total loss on account of stores lost in transportation and condemned.....	24,639 16
The value of the stores lost in transportation during the fiscal year 1879, where responsibility for the loss has been fixed, is.....	1,757 86
The amount collected and taken up on officers' accounts or covered into the Treasury on above account, is.....	481 18
Leaving balance to be collected and covered into the Treasury.....	1,276 68

SUBSISTENCE OF RECRUITING PARTIES AND RECRUITS.

The amount expended during fiscal year for subsistence of recruiting parties and recruits was \$26,631.49.

COMMISSARY-SERGEANTS.

During the last fiscal year three commissary-sergeants have been tried and found guilty of misappropriation of subsistence stores or funds, and dishonorably discharged the service, forfeiting all pay and allowances due them. One of them was sentenced to imprisonment for eight years for his offenses. In the case of a fourth it was found, after his discharge by expiration of service, that a deficiency in stores existed for which he is claimed to have been responsible.

After a careful examination of the evidence thus far submitted in each of the first three cases above referred to, I have reached the conclusion that in no case could the misappropriations have occurred to the extent that they did had the officers with whom those sergeants were serving properly performed their duties. I have recommended that the forfeited pay and allowances of those dismissed by sentence of court-martial be transferred to the credit of the appropriations of the Subsistence Department to be applied as a reimbursement for the losses which have occurred; and should the losses in any cases be in excess of the amounts so forfeited, I shall, in the absence of further evidence to relieve the officers of the appearance of neglect of duty on their part, recommend that they be held pecuniarily responsible to the government for the remainder necessary to make a complete reimbursement.

The duties and responsibilities of officers doing duty in the Subsistence Department, who may be assisted by commissary-sergeants, are fully set forth in paragraphs II, III, and IV, General Orders No. 31, Headquarters of the Army, Adjutant-General's Office, 1878. It had been my expectation, upon the promulgation of that order, that proper care would thereafter be taken against losses by the malfeasance of any commissary-sergeant, but I regret that the object of that order has not been more fully attained than the results of the past year indicate.

CIVILIAN EMPLOYÉS.

In my annual report for the year 1876, I stated the number of civilian employés to be 51 clerks and 75 other employés, 126 in all; and that "it is believed that but little, if any, further reduction can be made without impairing the efficiency of the department." The number of clerks employed in June last was the same as reported in 1876, the number of other employés 68, a reduction of 7 employés. The clerical force appears to be reduced to about the minimum consistent with efficiency.

ARMY COOKS AND BAKERS.

On the 8th of November, 1876, I stated in a communication to the honorable Secretary of War:

I am of the opinion that the efficiency of the Army would be materially increased, and desertions lessened, were a cook enlisted for each company with extra pay, say \$4 in excess of the pay of a private, and schools for the instruction of cooks established at the recruiting-depôts at Fort Columbus, N. Y., and Columbus Barracks, Ohio.

In my annual report for the year 1876, I stated—

I also think that bakers should be specially enlisted, paid extra-duty pay, say \$4 per month, and assigned to posts as commissary-sergeants. I recommend that should schools for cooks be established at recruiting-depôts, bakers should also be instructed at the same schools.

I again invite the attention of the honorable Secretary of War to this subject in connection with the following extract from the report of the Board on Army Cooking, convened by General Orders No. 117, Headquarters of the Army, Adjutant-General's Office, series of 1877:

The Army needs the enlistment of men who have an aptitude for cooking, and the establishment of a school for their education in the economy of the kitchen. * * * Extra compensation is allowed to enlisted men when on duty as mechanics, artisans, and laborers, when performing such work, but none to the company cook, whose duty, if conscientiously done, is the most onerous performed by the enlisted man. Eight hours is the time fixed for the labor of the extra-duty men, who are rated and paid as such. The duties of the competent and conscientious company cook commence two

hours before reveille, and frequently are not concluded before tattoo. The wear and tear of the clothes of a company cook is double that of any enlisted man in the same company, yet the cook receives no extra compensation therefor, whilst the carpenter, blacksmith, or laborer detailed from the same company does.

An important aid to good soldiering is good cooking. This cannot be obtained without good cooks, and good cooks cannot be obtained without education and adequate compensation. If one company cook, while actually performing duty as such, was allowed 50 per cent. advance on his clothing allowance and a monetary compensation of 30 per cent. per day, to be paid either from the Subsistence Department or the Quartermaster Department, a class of men would be secured to the Army who would economically use the ration, cook it acceptably, and be anxious to retain his position for the extra compensation it brings, whilst at present he is only glad to be relieved from kitchen duty for lighter work.

I respectfully urge the Secretary of War to invite the attention of Congress to this subject, believing the subject one of the utmost importance in connection with the health, comfort, and efficiency of the enlisted men of the Army.

ARMY COOKING.

The board appointed by General Orders No. 117, Headquarters of the Army, Adjutant-General's Office, series of 1877, to make experiments in Army cooking and prepare a manual for Army cooks, has completed its labors in the most satisfactory manner. Authority has been given by the Secretary of War for the publication and distribution to the Army of such portion of the manual as in the opinion of the Surgeon-General and myself appeared best adapted to the purpose for which the same was desired.

BUREAU CLERKS.

I had intended to set forth in this report what I deem the necessity for a reorganization of the number and classes of clerks in this office; but the Secretary of War having, under date of September 17, directed that this shall be made the subject of a special communication to be submitted to him after the meeting of Congress, its consideration is therefore deferred.

ACCOUNTS AND RETURNS.

There were received during the year from 467 officers performing duty in the Subsistence Department the following accounts and returns, viz:

Accounts-current.....	2,614
Returns of provisions.....	2,425
Returns of commissary property.....	960
Total received.....	5,999

During the same period there were examined in this office and forwarded to the Third Auditor (the returns for file and the accounts-current for final settlement) the following:

Accounts-current.....	2,558, accompanied by....	36,092 vouchers.
Returns of provisions.....	2,396, accompanied by....	30,189 vouchers.
Returns of commissary property.....	952, accompanied by....	2,376 vouchers.
Total.....	5,906, accompanied by....	68,657 vouchers.

In connection with the above there were 4,722 letters written, and 1,077 referred by endorsement.

When it is understood that the examination of the accounts and returns, and of the vouchers submitted therewith, includes a careful examination and revision of all the computations involved, as well as the ascertainment of the fact whether all laws, regulations, and orders re-

lating to purchases, to payments, and to issues have been complied with in every detail of the accounts and returns, the extent and importance of the clerical labor concerned will be appreciated.

In addition to the money accounts and returns of property, returns of official postage-stamps to the number of 1,574, accompanied by 4,705 vouchers, have been examined and filed.

As accounts and returns were received from 223 officers during the month of June last, it appears that about 200 officers not belonging to the Subsistence Department were performing subsistence duty. This number, it is assumed, is about the average number constantly employed during the year.

CLAIMS RECEIVED AND DECIDED.

Act July 4, 1864.—Under the third section of the act of July 4, 1864, and the acts supplementary thereto, 294 claims were filed in this office during the fiscal year 1879 for examination. Decisions have been rendered, during this period, in 43 cases of this class of claims. Of these, 21, amounting to \$15,778.89, were allowed, and recommended to the Third Auditor of the Treasury for payment, and 22, amounting to \$14,815.60, were rejected. The number decided embraced 21 cases re-examined upon additional evidence, of which 15 were allowed and 6 again rejected.

Commutation of rations of prisoners of war.—During the fiscal year, 1,288 claims for commutation of rations to Union soldiers while held as prisoners of war were received at this office. Of this class of claims 23 were not reached for examination; 1,476 were partially examined; 601 were rejected; and 329, amounting to \$11,198.48, were allowed and recommended to the Third Auditor of the Treasury for payment.

Miscellaneous claims.—In addition to claims under the above-mentioned special acts of Congress, 247 miscellaneous claims, amounting to \$34,048.32, were received during the fiscal year; of which 93, amounting to \$26,748.36, were recommended for payment; 46, amounting to \$5,546.35, were rejected; 103, amounting to \$1,679.05, partially examined; and five, amounting to \$74.56, were not reached for examination. Of this class of claims, 70 old cases were completed and allowed in the sum of \$2,742.89; 29, amounting to \$3,187.66, rejected; and 26, amounting to \$848.20, partially examined. Of rejected (old) claims of this class, 15 were re-examined upon additional evidence; 5 of which, amounting to \$160.80, were allowed; 3, amounting to \$1,105.80, were again rejected; and 8, amounting to \$243.55, were not reached for decision.

Letters and indorsements.—In connection with the above-mentioned three classes of claims, 8,878 letters and indorsements were written.

CLAIMS PENDING.

The following-described claims were pending in this office at the close of the fiscal year, viz :

Act July 4, 1864.—Under section 3, act of July 4, 1864, 1,066 claims, amounting to \$716,861.89; of which 683, amounting to \$494,155.83, have been partially examined, and 383, amounting to \$222,706.06, have not been reached for examination.

Commutation of rations of prisoners of war.—Two thousand four hundred and fifty-six claims for commutation of rations (prisoners of war), the amount of which cannot be approximately estimated. Of these, 2,433 have been partially examined, and 23 not reached for examination.

Miscellaneous claims.—Four hundred and five miscellaneous claims, amounting (estimated, in part) to \$32,755.30, all of which have been partially examined, with the exception of 5, amounting to \$74.56.

By section 3 of the act approved March 3, 1879, it is provided "that all claims under the third section of the act of July 4, 1864, and the acts supplementary thereto, which are not presented and filed prior to the 1st day of January, A. D. 1880, shall be forever barred." During the last year less than 300 claims under these acts were presented. It may be assumed that the claims which will be presented between July 1, 1879, and January 1, 1880, will not exceed 150. Should this number be presented, the number of this class then to be examined will be about 1,200. It is due to the claimants and the government that they should be examined at the earliest practicable date, and it is suggested that the necessary legislation to enable this to be done shall be recommended to Congress, there being no authority of law at present for the employment of officers or agents in making the required investigations in connection with these claims.

In bill H. R. 2, Forty-sixth Congress, first session, proposing "appropriations for the legislative, executive, and judicial expenses of the government for the fiscal year ending June 30, 1880, and for other purposes," and was concurred in by the Senate, although the bill did not become a law, was the following clause, viz: "That the Secretary of War is hereby authorized to detail as many officers of the Army as may be necessary to investigate claims not heretofore examined by the Commissary-General for allowance." I recommend that the proposed act be so modified as to authorize the Commissary-General to detail such officers of the Subsistence Department as may be necessary to investigate claims not already decided by him, or those which, having been decided, may be reopened on account of the new evidence submitted. I am of the opinion that all the examinations necessary may be made by officers of the Subsistence Department, and that the service of no other officers will be required.

STATIONS OF OFFICERS OF THE SUBSISTENCE DEPARTMENT.

The stations of officers of the department on the first of October is shown in the report hereto appended.

The following changes in stations have been made since my last annual report:

Maj. Thomas C. Sullivan, from duty as purchasing and depot commissary of subsistence at New Orleans, La. to Vancouver Barracks, Wash., as chief commissary of subsistence, Department of the Columbia, December 10, 1878.

Capt. William H. Bell, from duty as chief commissary of subsistence, Department of the Columbia, to New Orleans, La., as purchasing and depot commissary of subsistence, relieved from that duty June 2, 1879, and assigned to duty as purchasing and depot commissary of subsistence at Washington, D. C., June 10, 1879.

Capt. Thomas Wilson, from duty as purchasing and depot commissary of subsistence at Washington, D. C., to Omaha, Nebr., as chief commissary of subsistence, Department of the Platte, July 1, 1879.

Maj. John P. Hawkins, from duty as chief commissary of subsistence, Department of the Platte, Omaha, Nebr., to New York City, N. Y., as purchasing and depot commissary of subsistence, August 1, 1879.

Maj. Beekman DuBarry, from duty as purchasing and depot commissary of subsistence at New York City, N. Y., to West Point, N. Y., as treasurer of the Military Academy, and quartermaster and commissary of the battalion of cadets, and also as disbursing officer of the Military Academy, September 1, 1879.

Capt. Charles A. Woodruff, depot commissary of subsistence at Fort

Leavenworth, Kans., was (by Special Orders 218, Headquarters of the Army, Adjutant-General's Office, September 20, 1879) ordered to relieve Capt. F. F. Whitehead of his duties as chief commissary of subsistence of the District of New Mexico. Captain Whitehead on being relieved to proceed to New Orleans, La., on or before November 15, 1879, and assume the duties of purchasing and depot commissary of subsistence in that city.

In compliance with instructions given by the division and department commander at suggestions from this office, Capt. S. T. Cushing was temporarily relieved of his duties as purchasing and depot commissary of subsistence at San Francisco, Cal., June 7, 1878, and ordered to report for duty to the commanding general, Department of the Columbia. Captain Cushing served as acting chief commissary of subsistence, Department of the Columbia, in the field, to September 11, 1878, when he was relieved and ordered to join his station at San Francisco, Cal., where he arrived on September 14, 1878, and resumed his duties as purchasing and depot commissary of subsistence, September 16, 1878.

It would be in the interest of economy if officers of the department were available to accompany all large commands taking the field, to be assigned to duty with such commands and required to perform duties as chief commissaries with them in the field. I regret that the limited number of officers of the department has not enabled me in all cases to recommend the assignment of officers to such commands, and that in some cases where they have been assigned they have not been allowed to perform their proper duties. The interests of economy and of the service in general have not been subserved by such refusal or neglect.

Very respectfully, your obedient servant,

E. MACFEELY,

Commissary-General of Subsistence.

The honorable THE SECRETARY OF WAR.

Roster of the Subsistence Department, United States Army, October 1, 1879.

Name and rank in the department.	Rank by brevet.	Duty and P.-O. address.
COMMISSARY-GENERAL OF SUBSISTENCE.		
<i>Brigadier-General.</i>		
Robert Macfeely	Bvt. Col., March 13, 1865.	Commissary-General of Subsistence.—Washington, D. C.
ASSISTANT COMMISSARIES-GENERAL OF SUBSISTENCE.		
<i>Colonels.</i>		
Charles L. Kilburn	Bvt. Brig. General, March 13, 1865.	Chief C. S., Mil. Div. of the Mo.—Chicago, Ill. Under orders for duty as Chief C. S., Mil. Div. of the Pacific and Dept. of California.
Marcus D. L. Simpson	Bvt. Major-General, March 13, 1865.	Chief C. S., Mil. Div. of the Atlantic and Department of the East.—Governor's Island, New York, N. Y. Under orders for duty as Chief C. S., Mil. Div. of the Missouri.
<i>Lieutenant-Colonels.</i>		
Henry F. Clarke	Bvt. Major-General, March 13, 1865.	Purchasing and Depot C. S. at Baltimore, Md.—No. 160 W. Fayette Street, Baltimore, Md. Under orders for duty as Chief C. S., Mil. Division of the Atlantic and Dept. of the East.
William W. Burns	Bvt. Brig.-General, March 13, 1865.	Chief C. S., Mil. Div. of the Pacific and Dept. of California.—Presidio of San Francisco, San Francisco, Cal. Under orders for duty as Purchasing and Depot C. S. at Baltimore, Md.
Amos Beckwith	Bvt. Major-General, March 13, 1865.	Purchasing and Depot C. S. at St. Louis, Mo.—St. Louis, Mo.

Roster of the Subsistence Department, United States Army, October 1, 1879—Continued.

Name and rank in the department.	Rank by brevet.	Duty and P.-O. address.
COMMISSARIES OF SUBSISTENCE.		
<i>Majors.</i>		
Beekman Du Barry	Bvt. Col., March 13, 1865.	Treasurer of the U. S. Military Academy, and Quartermaster and Commissary of the battalion of Cadets, and Disbursing officer of the Mil. Academy.—West Point, N. Y.
Thomas J. Haines	Bvt. Brig.-General, March 13, 1865.	Assistant to the Commissary-General of Subsistence.—Washington, D. C.
George Bell.....	Bvt. Brig.-General, April 9, 1865.	Chief C. S., Dept. of the South. Purchasing C. S. at Cincinnati, Ohio.—Newport Barracks, Newport Ky. Under orders for duty as Purchasing and Depot C. S., Fort Leavenworth, Kas., and Chief C. S., Dept. of the Missouri.
Michael R. Morgan	Bvt. Brig.-General, April 9, 1865.	Chief C. S., Dept. of Dakota. Purchasing and Depot C. S. at St. Paul, Minn.—Saint Paul, Minn.
John P. Hawkins	Bvt. Major-General, March 13, 1865.	Purchasing and Depot C. S. at New York City, N. Y.
Michael P. Small.....	Bvt. Brig.-General, April 9, 1865.	Purchasing and Depot C. S. at Chicago, Ill.—No. 3 E. Washington St., Chicago, Ill.
Thomas C. Sullivan	Bvt. Lt.-Col., March 13, 1865.	Chief C. S., Dept. of the Columbia. Purchasing C. S. at Portland, Oregon. Purchasing and Depot C. S. at Fort Vancouver, Wash.—Fort Vancouver, Vancouver, Wash.
John W. Barriger.....	Bvt. Brig.-General, March 13, 1865.	Assistant to the Commissary-General of Subsistence.—Washington, D. C. Under orders for duty as Purchasing C. S. at Cincinnati, Ohio, and Chief C. S., Dept. of the South.
<i>Captains.</i>		
Thomas Wilson.....	Bvt. Brig.-General, March 13, 1865.	Chief C. S., Dept. of the Platte. Purchasing and Depot C. S. at Omaha, Nebr.—Omaha, Nebr.
William H. Bell.....	Bvt. Major, March 13, 1865.	Purchasing and Depot C. S. at Washington, D. C.—15th St., bet. B and C Sts. S. W., Washington, D. C.
Jeremiah H. Gilman	Bvt. Lt.-Col., Dec. 31, 1862.	Chief C. S., Dept. of the Mo. Purchasing and Depot C. S. at Fort Leavenworth, Kans.—Fort Leavenworth, Kans. Under orders for duty as Assistant to the Commissary-General of Subsistence.
Samuel T. Cushing.....	Bvt. Major, March 13, 1865.	Purchasing and Depot C. S. at San Francisco, Cal.—No. 111 Stockton St., San Francisco, Cal.
William A. Elderkin.....	Bvt. Major, March 13, 1865.	Purchasing and Depot C. S. at Yankton, Dak.—Yankton, Dak.
Charles B. Penrose.....	Bvt. Lt.-Col., Nov. 11, 1867.	Chief C. S., Dept. of Texas. Purchasing and Depot C. S. at San Antonio, Tex.—San Antonio, Tex.
William H. Nash.....	Bvt. Major, Nov. 17, 1865.	Depot C. S. at Cheyenne, Wyo.—Cheyenne, Wyo.
Charles McClure	Bvt. Major, Aug. 17, 1866.	Purchasing and Depot C. S. at Boston, Mass.—No. 159 High St., Boston, Mass.
Charles P. Eagan .....	.....	Chief C. S., Dept. of Arizona.—Whipple Barracks, Prescott, Ariz.
Fred. F. Whitehead	Bvt. Major, March 2, 1867.	Chief C. S., Dist. of New Mexico.—Santa Fe, New Mex. Under orders for duty as Purchasing and Depot C. S. at New Orleans, La.
John F. Weston .....	.....	Purchasing and Depot C. S. at Helena, Mont.—Helena, Mont.
Charles A. Woodruff.....	.....	Depot C. S. at Fort Leavenworth, Kans.—Fort Leavenworth, Kans. Under orders for duty as Chief C. S., Dist. of New Mexico.

OFFICE DEPOT COMMISSARY,
Cheyenne, Wash., January 15, 1879.

SIR: I have the honor to transmit herewith a report on the cattle and sheep interests of Wyoming and Colorado, which I consider perfectly reliable in all its parts. Beef being one of the prime components of the ration issued by the Subsistence Department, I have thought that a report of this character would not be inappropriate or wholly devoid of interest to yourself and the department. The labor upon it has been great, more than I anticipated at the outset—in verifying all the facts and the tables given. I submitted the latter to persons engaged in the business, men of practical experience, and they, after careful examination, approved them. This is particu-

larly so of the tables in the body of the report, giving results of investments for three and five years.

Very respectfully, your obedient servant,

W. H. NASH,

Captain and Commissary Subsistence, U. S. A.

The COMMISSARY-GENERAL OF SUBSISTENCE, U. S. A.,

Washington, D. C.

OFFICE DEPOT COMMISSARY,

Cheyenne, Wyo., ———, 187—.

SIR: I have the honor to submit the following report on the cattle and sheep interests of Colorado and Wyoming, believing it will prove of no little interest and profit to the department.

A few remarks on the manner of breeding and raising cattle on the plains may be appropriate. A site for a ranch is selected—eighty acres or less pre-empted—upon which a cabin and stables for horses are built. The range surrounding the ranch, extending for miles in either direction, is presumed to be well suited for grazing purposes, with running streams of water within easy reach of the cattle at all seasons of the year.

Upon this range the cattle after being branded are turned loose to roam at will. At the ranch the foreman, who is selected for his knowledge of cattle-raising, with the necessary number of herders, resides.

The wages of a first-class foreman are about \$75 per month, and herders at \$35 per month and rations furnished. For breeding purposes one bull for each 25 cows is provided. The Texas cows and short-horn stock of bulls make an excellent crossing, the product being large, fine, and hardy.

Five men, including the foreman, are sufficient to take care of 4,000 head of stock. During the month of May, annually, the "round-up" takes place. The country is divided into districts by the County Stock Growers' Association. All the herders, with skilled stockmen as leaders, drive into a prearranged place all the cattle within the district to which they are allotted. The cattle are then "cut out," and divided according to the brands, and the calves branded. Fully a month's time is required to accomplish this work. After the calves are branded and account of stock taken, the herd is again turned loose to graze and fatten. At these "round-ups" thousands of head of cattle are gathered together, belonging to different owners. The system is so completely well organized and so well carried out that the loss to owners is but trifling.

The cattle from the 1st of August until the 1st of March are fat and in excellent condition for beef. From the 1st of March until August they are poor, and good beef-cattle are difficult to obtain from the ranges. To insure good beef during the entire year, the grasses—gramma, bunch, and blue grass—should have a luxuriant growth during the summer months, and be well cured on the ground before frost appears. When this occurs the feed is excellent during the winter months, and cattle keep fat on it. Shipments of beef-cattle to Eastern markets commence about September 1, and are completed for the year about December 1, occupying three months' time. The cattle are driven from the different ranges to the nearest accessible shipping point on the Union Pacific Railroad, loaded into stock-cars, and shipped to Chicago, Saint Louis, and other Eastern markets, the large majority of shipments being made to the first-named city.

During the year 1876 the shipment of cattle over the Union Pacific Railroad amounted to 1,780 car-loads—averaging 20 head to the car—making a total of 35,600 head. During the year 1877 there were shipped over the same road 3,880 car-loads, making a total of 77,600. During the year 1878 there has been shipped from points in Wyoming 4,000 cars (estimated), making a total of 80,000 head. These cattle, at a low estimate, are worth \$42 per head, gross, making a total valuation, in the Chicago market, of \$3,360,000. It costs for freight about \$7.50 per head to Chicago; \$9 per head will cover all expenses—freight, commission for selling, &c. These cattle are worth, in Wyoming, ready for shipping, \$26; add expense to lay them down in Chicago, \$9, makes a total of \$35, leaving a net profit to the shipper of \$7 per head—a low estimate. It must be kept in mind, however, that in computing the value of cattle (four years old) at \$26 *here*, a good portion of that sum is net profit to the owner, over and above the cost of breeding and raising.

It will readily be seen that the cattle business of Colorado and Wyoming is very profitable. That it is rapidly becoming an immense business, the following figures will abundantly show.

In 1876 the number of head of cattle in Wyoming was 115,800. This is the num-

ber of head as returned by the different county assessors, with 25 per cent. added, which is a fair estimate. I have not been able to get the figures for 1877. On the 1st day of January, 1879, there are in the Territory fully 277,500 head of cattle, at \$15 per head, making the total valuation at \$4,162,500.

The better to show the cattle business in its details, I give herewith an account, running five years, showing the result of breeding cattle exclusively. It is based upon an investment of \$15,000, and can be implicitly relied upon.

1877—1,000 cows, at \$12.....	\$12,000
40 bulls, at \$75.....	3,000
	<hr/>
1878—6 bulls, at \$75.....	15,000
1879—12 bulls, at \$75.....	450
1880—12 bulls, at \$75.....	900
1880—15 bulls, at \$75.....	1,125
	<hr/>
	17,475

Expenses.

First year—Ranching 1,040 head.....	\$2,000
Second year—Ranching 1,546 head.....	2,000
Third year—Ranching 2,208 head.....	2,500
Fourth year—Ranching 2,903 head.....	3,000
Fifth Year—Ranching 3,763 head.....	4,000
	<hr/>
	30,975
5 per cent. contingent loss on 5,063 head.....	3,795
	<hr/>
	34,770

Natural increase of stock during this time—

1878—Calves.....	500
1879—Calves.....	700
1880—Calves.....	730
1881—Calves.....	910
1882—Calves.....	1,150
Cows, original purchase.....	1,000
Bulls, purchase.....	73
	<hr/>
Total number head of stock.....	5,063

Contra.

1878—Sold 50 head of cows, at \$20.....	\$1,000
1879—Sold 50 head of cows, at \$20.....	1,000
1880—Sold 50 head of cows, at \$20.....	1,000
1881—Sold 50 head of cows, at \$20.....	1,000
1881—Sold 200 head of steers, 3 years old, at \$25.....	5,000
1882—Sold 100 head of cows, at \$20.....	2,000
1882—Sold 50 head of steers, 4 years old, at \$30.....	1,500
1882—Sold 250 head of steers, 3 years old, at \$25.....	6,250

Value of stock on hand 1882—

1,300 cows, 3 years old and over, at \$18.....	32,400
100 steers, 3 years old and over, at \$25.....	2,500
730 steers and heifers, 2 years old, at \$15.....	10,950
910 steers and heifers, 1 year old, at \$10.....	9,100
73 bulls, at \$30.....	2,190
1,150 calves, at \$7.....	8,050
	<hr/>
5,063 head.....	74,940
Deduct cost and expenses.....	34,770
	<hr/>
Net profit at end of of 5 years.....	40,170

These figures are furnished me by one of the largest and most pains-taking cattle-raisers in Wyoming, and are within bounds, easily verified by any one going into the business. At the prices given a man can at any time sell out his entire herd.

INVESTMENT NO. 2.

This is an investment in 750 head of steers, profit reinvested yearly, closing account at end of three years:

Bought first year.....	350 head three-year-old steers, at \$16	\$5,600
Bought first year.....	400 head two-year-old steers, at \$12	4,800
Bought second year	450 head three-year-old steers, at \$16	7,200
Bought second year	450 head two-year-old steers, at \$12	5,400
Bought third year.....	800 head three-year-old steers, at \$16	12,800
Bought third year.....	800 head two-year-old steers, at \$12	9,600
	3,250 head; cost	45,400

Expenses.

Herding, first year, 750 head, at \$1.....	750
Herding, second year, 1,200 head, at \$1	1,200
Herding, third year, 2,000 head, at \$1	2,000
Ten per cent. for contingent losses	5,000

Total cost and expenses

54,350

Contra.

Sales first year.....	450 head, at \$25	11,250
Sales second year	800 head, at \$26	20,800
Sales third year.....	1,350 head, at \$26	35,100

Total	2,600 sold for	67,150
Remaining on hand	650 head, at \$20	13,000

3,250

Cost, expenses, and losses.....	80,150
	54,350

Net profit..... 25,800

This table requires only an investment of \$10,400. You are not obliged to even own or have a claim to your range, but simply hire some one to herd your cattle, paying therefor one dollar per head. As will be seen, the profit in three years' time is fifty per cent. annually on the original investment. Like the preceding table, these figures can be relied upon as within due bounds, and verified by actual experience.

I have thus endeavored to give you some idea of the cattle interest in Wyoming Territory. The tables appended hereto will give in detail such facts as are not found in the body of this report, embracing full returns of the number of head of cattle in the State of Colorado.

CANNED BEEF AND TONGUE.

Large quantities of canned beef and tongue are annually consumed by travelers across the plains, ranchmen and others, in addition to the large quantity purchased for the use of the Army by the Subsistence Department. Establishments for curing and canning these articles of food could be built here or at Denver, Colo., at a cost very little in excess of the cost of similar structures in the East, while the very best of beef could be purchased at one-half, or even less, the cost in Chicago or Saint Louis. The cost of curing and canning beef and beef tongue here would, in my opinion, be from 30 to 35 per cent. less than in Saint Louis or Chicago.

I hope soon to see capitalists interest themselves in this branch of business, believing an examination will show it to be both practicable and profitable.

FEEDING EAST OF THE MISSOURI.

The immense corn crop, east of the Missouri River, of last year's growth and the extreme low price, 15 to 20 cents per bushel, renders the question of how to get rid of the large surplus at remunerative prices one of vast importance to the farmers of Iowa and Illinois. The farmers of these and other States, can buy in Wyoming and Colorado cattle, three and four years old, at very low figures. They could be transported to these eastern farms, fed and fattened on the surplus corn, and early in the spring shipped to the Chicago market in splendid condition, and sold at a price which would realize a profit to the farmer, of not less than 25 per cent. over and above his investment, and all expenses added.

These cattle being corn fed and well fattened, would bring the highest market price, at least three-quarters of a cent per pound gross, more than the grass fed cattle of the plains would sell for. Thus the farmer's surplus crop of corn is disposed of and a fair profit for his labor realized. The cattle can be purchased and fattened on these farms during the winter months at but little, if any, extra expense, as it is done at a

time of the year when the labor of the farm, beyond feeding and caring for the stock, is wholly suspended.

The beef, for the supply of the United States, east of the Missouri River, is, in the near future, to be almost wholly supplied from the Great Plains trending eastward from the Rocky Mountains. Millions of cattle can be raised and fattened on the luxuriant and rich grasses of Wyoming, Colorado, and New Mexico, and at an expense no farther east of the Missouri River can begin to compete with.

The more I see of this vast extent of country, its immense and undeveloped resources and the future growth of its cattle and sheep interests, the more I am impressed with its great advantages for the employment of the surplus capital and energetic labor of the overcrowded Eastern States. There is room here for all, not the lazy and indolent, but the men of brain and energy. I know no section of the United States where there is so good a prospect for a man of small capital and unbounded energy as in the pastoral pursuits of this Rocky Mountain region.

SHEEP HUSBANDRY.

This branch of industry has, from small beginnings, reached large proportions and is increasing rapidly. It is attended with more risks, owing to the violent storms prevalent on these plains, than the raising of cattle; but so far, the results have been eminently satisfactory to those engaged in the business. The remarks on the breeding and raising of cattle, so far as the location and the character of the range is concerned, are equally applicable to a sheep range. For sheep it is necessary to build sheds in which to shelter them during violent storms. These sheds are generally built of concrete or adobe and roofed with dirt. The sheep are never kept in these sheds except during the hard and violent storms, lasting from one to three days.

A large majority of sheep-growers in this section have bought New Mexican ewes in starting their flocks, breeding them to full-blooded and high-grade Spanish merino bucks, and their sheep are now mainly one-half and three-quarter blood merino.

A number are now breeding with Cotswold bucks in order to obtain larger sheep for mutton and a greater length of staple. Thus far the improvement on the Mexican stock has been very rapid and successful, and it is generally believed that better sheep are obtained in this way than by importing graded sheep from the Eastern States. The Mexican sheep are used to being herded in large flocks, are entirely free from disease, and impart strong constitutions to their increase.

In purchasing to start a ranch one buck is required for every fifty ewes.

The average cost of keeping sheep is from 50 cents to \$1 per head, per annum, depending upon the number of sheep kept, locality, &c. This includes feed, shelter, shearing, herding, and extra care during the lambing season.

From 1,500 to 2,500 head usually run in one flock. They will range from three to five miles from the corrals during the day, are corraled at night and "shedded" or housed during stormy weather.

It is necessary to feed some hay during the worst storms, but the number of "feeding days" will not exceed twenty-five during the year.

The average increase of lambs is from 75 to 90 per cent annually, depending upon the care the ewes have during the season they drop their lambs. The average yield of wool is about five pounds per head. The price during the past year has been 22 cents per pound delivered ready for shipment at the nearest accessible shipping point on the Union Pacific Railroad.

Sheep are very healthy throughout this entire region. There is no disease that is peculiar to this climate. Foot-rot is not known, and the scab, although often brought in with bucks from the States, is very easily cured by frequent dipping in tobacco juice. There has always been a large demand for mutton sheep, and all of this kind are quickly disposed of at prices ranging from \$2.50 to \$2.75 per head.

The wages for foreman on the ranch, and herders, are the same as for those employed on cattle-ranges. In ordinary times one man, as herder, can easily take care of 2,500 sheep. During the lambing season an extra man is required for two flocks from 1,500 to 2,500 head each. Good ewes, New Mexican, can be bought for \$2.40 per head. Good bucks, merino or Cotswold, can be delivered here for about \$40 each. Mr. H. B. Rumsey, an extensive sheep raiser, residing at Laramie City, says:

"A man from Indiana, we will say, could come out here with \$3,000, buy 300 sheep, with 8 bucks, for \$1,200; 10 cows and one bull for \$300; wagon, horses, mowing-machine, &c., \$500; a good log house, sheds, and everything necessary for care of all stock, \$750, leaving him \$250 for expenses for first year, besides sale of butter, would be sure of having what would be called a fortune in his native State in five years."

Mr. Rumsey, in his first item, estimates the cost of ewes at a high figure and gives two bucks more than is absolutely necessary; but his figures are reliable, and could be practically verified by any one going into the business of raising sheep.

I append hereto tables showing the number of sheep in Colorado and Wyoming; amount of wool-clip for 1873, estimated, which are believed to be accurate and fully within bounds, rather under than over the actual facts. In a section of country like this Rocky Mountain region, including Wyoming, Colorado, and New Mexico, where

sheep are so numerous and the meat fully as cheap as beef, would it not be for the interest and health of the troops if mutton was issued to them, say, one day in seven? It is as healthy as beef; in fact, considered more so by a great many people as economical, and would give the troops a change.

CONCLUSION.

In this report my object has been to place before you facts in regard to the cattle and sheep interest of this section of country, connected with breeding and raising of stock, its cost and profits. Indirectly it furnishes you information enabling the department to act understandingly upon the award of beef contracts.

I desire to acknowledge the obligations I am under to the honorable secretary of state of Colorado, Hon. A. H. Swan, and Hay and Thomas of Cheyenne, H. B. Rumsey, esq., of Laramie City, Wyo., and many others, for valuable information, statistical and otherwise, kindly furnished me.

The COMMISSARY-GENERAL OF SUBSISTENCE, U. S. A.,
Washington, D. C.

No. 1.—Table showing number of cattle in Wyoming Territory January 1, 1879.

Counties.	Number of cattle.	Valuation.
Albany	20, 184	\$302, 760
Carbon	20, 000	300, 000
Laramie	157, 400	2, 361, 000
Sweetwater	60, 000	900, 000
Uintah	20, 000	300, 000
Total	277, 584	4, 163, 760

No. 2.—Table showing number of sheep and pounds of "wool-clip," with valuation thereof, in the Territory of Wyoming, for the year 1878.

Counties.	No. of head of sheep.	Valuation.	Pounds of wool.	Valuation.
Albany	48, 800	\$120, 000	192, 000	\$38, 400
Carbon	4, 000	10, 000	16, 000	3, 200
Laramie	90, 000	225, 000	360, 000	72, 000
Sweetwater	6, 500	16, 250	26, 000	5, 200
Uintah	9, 500	23, 750	38, 000	7, 600
Grand total	158, 800	395, 000	632, 000	126, 400

No. 3.—Table showing number of head of cattle in the State of Colorado for the years 1877 and 1878, and the valuation thereof.

Counties.	1877.		1878.	
	Number of cattle.	Valuation.	Number of cattle.	Valuation.
Arapahoe	46, 435	\$331, 012	32, 578	\$278, 884
Bent	49, 972	408, 093	81, 022	691, 203
Boulder	9, 595	131, 405	9, 106	108, 215
Clear Creek	740	16, 599	678	14, 672
Conejos	2, 518	30, 930	5, 399	53, 587
Costilla	6, 604	75, 887	6, 477	69, 231
Custer	12, 753	178, 267	14, 250	179, 135
Douglas	16, 781	157, 602	18, 964	231, 548
Elbert	63, 818	500, 851	57, 402	461, 013
El Paso	26, 347	353, 345	24, 258	286, 985
Fremont	12, 159	156, 171	14, 292	127, 758
Gilpin	765	23, 908	752	18, 224
Grand	599	8, 646	736	11, 685
Gunnison	1, 048	11, 991	1, 698	16, 501
Hinsdale	381	6, 898	338	7, 042
Huerfano	12, 485	136, 497	13, 393	139, 519
Jefferson	10, 286	130, 086	9, 674	136, 239

No. 3.—Table showing number of head of cattle in the State of Colorado, &c.—Cont'd.

Counties.	1877.		1878.	
	Number of cattle.	Valuation.	Number of cattle.	Valuation.
Lake.....	8,324	\$99,717	7,052	\$78,216
La Plata.....	4,633	58,212	9,238	111,388
Larimer.....	17,619	182,558	18,965	192,080
Los Animas.....	16,910	183,781	24,777	255,566
Ouray.....	598	11,270	982	16,974
Park.....	19,197	204,401	17,242	205,528
Pueblo.....	27,854	340,722	26,637	308,790
Rio Grande.....	2,608	30,876	2,745	36,037
Routt.....	6,504	26,490	3,480	36,682
Saguache.....	17,455	236,108	16,945	201,179
San Juan.....	30	605	34	655
Summit.....	625	6,812	207	2,786
Weld.....	66,097	601,938	63,958	650,875
Total.....	461,740	4,641,528	483,279	4,928,147
Add 25 per cent.....	115,435	1,160,382	120,820	1,232,037
Grand total.....	577,175	5,801,910	604,099	6,160,184

This table contains the statistics as returned by the officers of the several counties of the State, as given in for taxation. After consulting with the best-informed men of the State I have added 25 per cent. to the figures herein given, and am satisfied that with this addition it is under the actual number in the State on January 1, 1879.

No. 4.—Table showing number of head of sheep and pounds of wool-clip in the State of Colorado for the years 1877 and 1878, and valuation thereof.

Counties.	1877.				1878.			
	Number head of sheep.	Valuation.	Pounds of wool.	Valuation.	Number head of sheep.	Valuation.	Pounds of wool.	Valuation.
Arapahoe.....	40,188	\$52,794	160,750	\$32,150	46,337	\$79,935	185,348	\$37,070
Beet.....	37,779	49,971	151,116	30,223	39,636	54,749	158,544	31,708
Boulder.....	1,299	2,385	5,196	1,040	2,354	4,600	9,416	1,884
Conejos.....	14,050	20,964	56,200	11,240	57,871	72,753	231,484	46,287
Costilla.....	17,386	25,646	69,544	13,909	16,794	21,188	67,176	13,435
Custer.....	137	206	548	110	105	168	420	84
Douglas.....	4,434	6,984	17,736	3,547	5,317	9,595	21,268	4,254
Elbert.....	47,378	48,552	189,512	37,903	50,942	60,605	203,768	40,754
El Paso.....	101,643	237,655	406,572	81,315	109,177	209,015	436,708	87,342
Fremont.....					575	802	2,300	460
Grand.....	696	1,392	2,784	557	835	1,407	3,840	668
Huerfano.....	60,979	111,838	243,916	48,783	78,598	129,633	314,392	62,878
Jefferson.....	2,033	2,383	3,132	1,626	5,199	6,730	20,796	4,160
Lake.....	734	910	2,936	587	39	87	136	27
La Plata.....	11,850	11,925	47,400	9,480	7,867	9,417	31,468	6,294
Larimer.....	38,138	57,346	182,552	26,510	38,479	68,485	153,916	30,783
Los Animas.....	70,707	101,477	282,828	58,566	93,518	181,253	374,072	74,814
Park.....	1,648	3,285	6,592	1,318	2,069	2,872	8,276	1,655
Pueblo.....	29,029	52,029	116,116	23,223	34,214	64,009	136,856	27,371
Rio Grande.....	6,710	8,747	26,840	5,368	7,442	19,330	29,768	5,964
Saguache.....	13,114	21,264	52,456	10,491	10,069	12,556	40,276	8,058
Weld.....	24,285	27,097	97,140	19,428	42,867	58,335	171,468	34,294
Total.....	519,217	844,770	2,076,866	415,374	650,305	1,026,482	2,601,196	520,241
Add 25 per cent.....	129,804	211,192	519,216	103,843	162,876	256,620	650,299	130,060
Actual grand total.....	649,021	1,055,962	2,596,082	519,217	812,881	1,283,102	3,251,495	650,301

No sheep were reported from eight counties. The figures here given are the returns by the officers of the several counties of the State as given for purpose of taxation. I have added 25 per cent. to these returns and the actual grand total is believed to be under rather than over the actual figures on January 1, 1879. The wool-clip is calculated at 4 pounds per head and 20 cents per pound.

REPORT OF THE SURGEON-GENERAL.

REPORT

OF

THE SURGEON-GENERAL.

WAR DEPARTMENT,
SURGEON-GENERAL'S OFFICE,
Washington, October 1, 1879.

SIR: I have the honor to submit the following statement of finances and general transactions of the Medical Department of the Army for the fiscal year ending June 30, 1879:

FINANCIAL STATEMENT.

Appropriation for the Medical and Hospital Department, reappropriated for 1871 and prior years:	
Balance from previous fiscal year.....	\$1,965 33
Appropriated by act of March 3, 1879.....	1,347 00
Refunded during the year.....	54 00
	3,366 33
Disbursed during the year.....	\$3,312 33
Carried to the surplus fund.....	54 00
	3,366 33
Medical and Hospital Department, reappropriated for 1872:	
Balance from previous fiscal year.....	134 55
Disbursed during the year.....	134 55
Medical and Hospital Transfer Fund, under Act of March 3, 1873:	
Balance from previous fiscal year.....	165,190 52
Disbursed during the year.....	\$47 58
Carried to surplus fund.....	165,142 94
	165,190 52
Medical and Hospital Department, 1875:	
Balance from previous fiscal year.....	198 00
Appropriated by act of March 3, 1879.....	36 00
	234 00
Disbursed during the year.....	234 00
Medical and Hospital Department; 1877:	
Balance from previous fiscal year.....	5 91
Appropriated by act of March 3, 1879.....	1,295 96
Refunded during the year.....	20 60
	1,322 47
Disbursed during the year.....	1,309 06
	13 41
Balance June 30, 1879.....	
Medical and Hospital Department, 1878:	
Balance from previous fiscal year.....	99,938 67
Refunded during the year.....	100 00
	100,038 67
Disbursed during the year.....	87,923 50
	12,115 17
Balance June 30, 1879.....	

Medical and Hospital Department, 1879:

Appropriated by act of June 18, 1878	\$200,000 00
Refunded during the year	54 00
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	200,054 00
Disbursed during the year	128,144 03
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Balance June 30, 1879	71,909 97

The greater part of this balance has since been disbursed, and the remainder will be required in fulfilling contracts made before June 30.

Museum and Library, 1878:

Balance from previous fiscal year	\$2,274 11
Disbursed during the year	2,274 11

Museum and Library, 1879:

Appropriated by act of June 18, 1879	10,000 00
Disbursed during the year	9,284 48

Balance June 30, 1879	715 52
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Medical and Surgical History:

Balances from previous fiscal year, continued by act of June 18, 1879	28,657 05
Disbursed during the year	8,785 40

Balance June 30, 1879	19,871 65
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Artificial Limbs, 1877:

Balance from previous fiscal year	15,399 60
Disbursed during the year	\$4,431 90
Carried to the surplus fund	7,364 80
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	11,796 70

Balance June 30, 1879	3,602 90
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Artificial limbs, 1878:

Balance from previous fiscal year	413 67
Drawn from appropriation for 1879 under act of June 20, 1878	4,500 00

4,913 67

Disbursed during the year	2,782 10
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Balance June 30, 1879	2,131 57
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Artificial limbs, 1879:

Appropriated by act of June 20, 1878	105,000 00
Transferred for the service of the fiscal year 1878	\$4,500 00
Disbursed during the year	66,453 00
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	70,953 00

Balance June 30, 1879	34,047 00
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Appliances for disabled soldiers, 1877:

Balance from previous fiscal year	4,715 50
Disbursed during the year	\$2 00
Carried to the surplus fund	4,713 50
	<hr/>
	4,715 50

Appliances for disabled soldiers, 1878:

Balance from previous fiscal year	2,907 50
Disbursed during the year	71 50

Balance June 30, 1879	2,836 00
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Appliances for disabled soldiers, 1879:

Appropriation by act of June 20, 1878	3,000 00
Disbursed during the year	92 00

Balance June 30, 1879	2,908 00
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Expended in providing trusses for ruptured soldiers, seamen, and marines under the act approved May 28, 1872, extended by the act of March 3, 1879	7,979 99
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ARTIFICIAL LIMBS AND APPLIANCES.

There were furnished during the fiscal year, in kind, trusses, 442; artificial legs, 39; arms, 2; hands, 9; appliances for injured legs, 4. By commutation, legs, 168; arms, 297; feet, 16; appliances for injured limbs, 743.

HEALTH OF THE ARMY DURING THE FISCAL YEAR ENDING JUNE 30, 1879.

The monthly reports of sick and wounded received at this office, up to September 1, represent an average mean strength of 21,716 white and 1,947 colored troops.

Among the *white troops*, the total number of cases of all kinds reported as taken on the sick list was 37,810, being at the rate of 1,741 per 1,000 of mean strength. Of this number, 32,682, or 1,505 per 1,000 of strength, were taken on sick report for disease, and 5,128, or 236 per 1,000 of strength, for wounds, accidents, and injuries of all kinds.

The average number constantly on sick report during the year was 965, or 44 per 1,000 of mean strength. Of these, 761, or 35 per 1,000 of strength were constantly under treatment for disease, and 204, or 9 per 1,000 of strength, for wounds, accidents, and injuries.

The total number of deaths from all causes reported among the white troops was 266, or 12 per 1,000 of mean strength. Of these, 162, or 7 per 1,000 of strength, died of disease, and 104, or 5 per 1,000 of strength, of wounds, accidents, and injuries.

The proportion of deaths from all causes to cases treated was 1 to 142.

The total number of white soldiers reported to have been discharged the service on "surgeon's certificate of disability" was 677, or 31 per 1,000 of mean strength.

Among the *colored troops*, the total number of cases of all kinds reported was 3,932, or 2,020 per 1,000 of mean strength. Of these, 3,455, or 1,775 per 1,000 of strength, were cases of disease, and 477, or 245 per 1,000 of strength, were wounds, accidents, and injuries. The average number constantly on sick report was 77, or 40 per 1,000 of strength; of whom 62, or 32 per 1,000 of strength, were under treatment for disease, and 15, or 8 per 1,000 of strength, for wounds, accidents, and injuries.

The total number of deaths of colored soldiers reported from all causes was 28, or 14 per 1,000 of mean strength. Of these, 15, or 8 per 1,000 of strength, died of disease, and 13, or 6 per 1,000 of strength, of wounds, accidents, and injuries.

The proportion of deaths from all causes to cases treated was 1 to 140.

The total number of colored soldiers reported to have been discharged on "surgeon's certificate of disability" was 42, or 22 per 1,000 of mean strength.

WORK PERFORMED IN THE RECORD AND PENSION DIVISION.

The number of new official demands upon this division during the fiscal year for information as to the cause of death in the case of deceased soldiers and the hospital record of invalids was 22,339. Of these, 19,427 were from the Commissioner of Pensions, 2,498 from the Adjutant-General of the Army, and 414 from miscellaneous sources.

The total number of new cases was greater by 1,265 than the number received during the previous fiscal year, and greater by 1,954 than the average number of new cases received annually during the nine previous fiscal years.

But, in addition to this large number of new cases, the division was burdened at the commencement of the fiscal year by the arrears of former years, amounting in all on the 1st day of July, 1878, to 16,844 cases, so that the total number of cases to be searched during the year was 39,183.

In my last annual report I explained in detail that the number of cases in arrears had, previous to July 1, 1878, been still larger; but with the additional clerical force which commenced work May 18, 1878, the task of disposing of these arrears had already commenced, and was progressing in a satisfactory manner. During the fiscal year closing June 30, 1879, the same favorable condition of the business of the office continued. Search was made and replies furnished to the proper authorities in 35,183 cases, viz: 30,637 to the Commissioner of Pensions, 4,100 to the Adjutant-General of the Army, and 446 to miscellaneous inquirers. On the 1st of July, 1879, the number of cases remaining on hand unanswered had been reduced to 4,000.

After the 1st of July the work of disposing of the cases in arrears still continued, and by the 26th of the month, notwithstanding the continual receipt of an increasing number of new inquiries, the number of cases remaining on hand unanswered had been reduced to 2,744; so that, had the rate at which new cases were received at the office continued no greater than during the last year, all arrears would have been disposed of in the course of about two months more.

But, since the 1st of July, 1879, a great increase in the number of new cases received has taken place. The average number of new cases, which had been 1,862 monthly during the previous fiscal year, rose during July, 1879, to 2,045, and during the month of August to 4,255. As a consequence, and notwithstanding every effort of which the present clerical force is capable, the number of cases in arrears has rapidly increased. By the 1st of September, 1879, it was 4,651 cases.

This sudden increase in the number of new cases sent to this office is consequent upon the operation of the act of Congress approved January 25, 1879, granting arrears of pensions, &c.,* and especially the operation of the third section of said act, which repeals the statute imposing certain limitations in the prosecution of pension claims. By the provisions of that act a large amount of additional work has been thrown upon the Pension Office, and a very considerable proportion of the new cases are necessarily referred to this office for the hospital records of the soldiers concerned.

To enable the Pension Office to dispose of this increased work, a large increase of its clerical force was provided by the act of Congress approved March 3, 1879, making appropriations for the payment of the arrears of pension, &c.,† but not a single additional clerk has as yet been authorized to enable this office to meet its share of the work.

It appears to be certain that the number of cases sent monthly to this office for information from the hospital records will continue to increase for some time to come, and that the total number received during the present year will be many thousands in excess of the large number the

* Statutes of the United States of America, passed at the third session of the Forty-fifth Congress, 1878-'79, chap. 23, p. 265.

† Statutes of the United States of America, passed at the third session of the Forty-fifth Congress, 1878-'79, chap. 187, p. 469.

office was enabled to dispose of last year. With the present clerical force of the division it is impossible that the number of cases searched this year can exceed the number disposed of last. The clerical force remains unchanged, and the men were pushed last year to their utmost capacity. Unless, therefore, a temporary increase in the number of clerks employed be authorized by law to meet the emergency, the work of the office must again fall into arrears, and a deplorable delay in the adjustment of a large number of pension cases will inevitably result.

It would be possible, in the building now occupied by the Record and Pension Division, for forty additional clerks to work to advantage, and I earnestly recommend the employment of that number, in addition to those already on duty in this office, to enable me to meet the increased demands referred to with reasonable promptness. I also recommend a small appropriation for additional furniture to accommodate this increase in the clerical force.

Besides the work of searching just discussed, a certain amount of current record work is annually performed in this division. During the past fiscal year 2,589 monthly reports of sick and wounded have been received from the medical officers in charge of the various posts and stations. These have been examined, consolidated on statistical sheets for use, and the deaths and discharges entered in the appropriate alphabetical registers. Nine hundred and seventy-six monthly meteorological reports were received from medical officers, which have been transmitted to the Chief Signal Officer of the Army for his use, and 781 reports of the medical examination of recruits were received and filed. It not being possible, in view of the present demands upon the clerical force of the division, to undertake their discussion at the present time

DIVISION OF SURGICAL RECORDS.

In the Division of Surgical Records the surgical reports received from medical officers of the Army at posts with detachments of troops engaged in Indian hostilities were examined, and the cases reported were classified according to the seat or nature of injury or operation. The surgical portion of the Medical and Surgical History of the War was continued, and the descriptive catalogues of the surgical, anatomical and miscellaneous sections of the Army Medical Museum were completed to include all specimens received during the fiscal year ending June 30, 1879.

The cases of wounds, accidents, and injuries reported in Class V of the Monthly Reports of Sick and Wounded numbered 5,308, while the mean strength of the Army was 23,663 men. One hundred and seventeen deaths were occasioned by wounds received in action or other violent causes, a proportion of 4.9 per 1,000 of the mean strength.

During the fiscal year ending June 30, 1879, 3,340 official reports were received from medical officers in charge of post hospitals, or with detachments of troops, or with expeditions against hostile Indians. One thousand eight hundred and seventy-nine were regular quarterly reports, 172 were special reports, 12 were reports of casualties, and 1,277 were reports of a miscellaneous character.

Fourteen reports of engagements between Indians and United States troops were received in this division of the office during the fiscal year ending June 30, 1879:

1. A fight between a band of Indians, 400 in number, and a portion of General Howard's command, consisting of Companies A, E, F, G, H, K, and L, of the First Cavalry, took place near Olcut's farm, Oregon, on July 8, 1878. Assistant Surgeon J. A. Fitzgerald, U. S. A., reported

that a sergeant and four privates were wounded; one of the latter died the following day, July 9, 1878.

2. Assistant Surgeon D. Weisel, U. S. A., reported that in a skirmish on July 13, 1878, between Umatilla Indians and Captain Miles's command of portions of the Fourth Artillery, First Cavalry and Twenty-first Infantry, near Umatilla Agency, Oregon, a corporal of the Twenty-first Infantry and a corporal of the First Cavalry were wounded.

3. Asst. Surg. J. A. Fitzgerald, U. S. A., reported an engagement at the cañon of the North Fork of John Day's River, Oregon, on July 20 1878, in which a private of Company E, First Cavalry, received a shot-wound of the scalp.

4. On September 4, 1878, a fight occurred between a party of hostile Bannocks and a detachment of the Fifth Infantry at Bennett's Creek, Montana Territory. Acting Asst. Surg. R. G. Redd reported that Capt. Andrew S. Bennett, Fifth Infantry, was instantly killed, and a private of Company G received a slight wound of the forearm. Indian scout Rock was shot through the bowels and died the same day.

5. On September 6, 1878, 80 enlisted men, 40 each from Companies G and H, Fourth Cavalry, under command of Captain Rendlebrock, Fourth Cavalry, were sent from Camp Supply, Indian Territory, in pursuit of Northern Cheyennes, who had left their reservation early in September. The command came up with the Indians at Turkey Springs, Indian Territory, on September 13, when a fight ensued, which lasted two days. Asst. Surg. T. E. Wilcox reported a corporal and two privates killed, and two privates and an Apache volunteer scout wounded.

6. Asst. Surg. W. S. Tremaine, U. S. A., reported that in a skirmish with hostile Indians, near Bear Creek, thirty-five miles from Fort Dodge, Kans., on September 18, 1878, a private of Company I, Fourth Cavalry, was severely wounded.

7. Acting Asst. Surg. T. A. Davis reported an engagement at Punished Woman's Fork of Beaver Creek, Kansas, with Cheyenne Indians, September 27, 1878, in which Lieut. Col. William H. Lewis, Nineteenth Infantry, and two privates of the Fourth Cavalry were wounded. Lieutenant-Colonel Lewis was shot through the middle third of the right thigh, the ball completely severing the femoral artery. He died about twenty-seven hours after the reception of the injury, having been transported to within fifteen miles of Fort Wallace, Kans., and about thirty miles from the place where he was wounded.

8. On the night of January 9, 1879, about 150 Cheyenne Indian prisoners, confined at Fort Robinson, Nebr., after killing or wounding their sentries, made their escape from the barracks, and succeeded in reaching the bluffs, two miles distant. A detachment of the Third Cavalry, from the cantonment about a mile distant, was sent in pursuit of the Indians, and, after a series of skirmishes, the remaining Cheyennes were surrounded on January 22, in a "washout," in which all the rest were killed or captured. Asst. Surg. E. B. Moseley, who forwarded to this office an interesting and detailed account of the outbreak, reports the following casualties: During the night of January 9 to January 10, at the first revolt of the Indians at Fort Robinson, one corporal and nine privates of the Third Cavalry were wounded; two of the privates died within a few hours; a third lived until 9.30 p. m. on January 11.

9. On January 11, during the pursuit of the fleeing Indians, twenty miles from Fort Robinson, a corporal of the Third Cavalry was killed and a private and a farrier were wounded; the private died the following day.

10. On January 17, thirty miles from Fort Robinson, a private of Com-

pany H, Third Cavalry, was shot through the chest. His body fell into the hands of the savages, and was scalped, but not otherwise mutilated.

11. The last of these running fights occurred on January 22, forty miles from Fort Robinson. A sergeant, a farrier, and two privates of the Third Cavalry were killed, and two sergeants and Capt. H. W. Wessels, jr., of the Third Cavalry, and an Indian scout were wounded.

12. Acting Assist. Surg. R. G. Redd reported that on April 5, 1879, at Mizpah Creek, Montana Territory, a private of Company E, Second Cavalry, and a sergeant of the Signal Corps were attacked by a party of Cheyenne Indians. The private was instantly killed; the sergeant of the Signal Corps received only a slight flesh-wound.

13. Acting Asst. Surg. C. A. Sewall reported that in an engagement with Apache Indians in the Miembres Mountains, New Mexico, May 29, 1879, one private of the Ninth Cavalry was killed and two were wounded.

14. Acting Asst. Surg. C. A. Sewall reports that a farrier of the Navajo scouts was killed by Apache Indians ten miles from Ojo Caliente, N. Mex., on May 2, 1879.

At the close of the fiscal year ending June 30, 1878, 6,807 cases of injuries and operations that had occurred since the date of the publication of Circular 3, 1871, had been collected. To these have been added during the last fiscal year 1,021 cases, making a total of 7,828. Twenty-three hundred and eleven are injuries of the head, 136 of the face, 63 of the neck, 559 of the trunk, 1,402 of the upper extremities, 913 of the lower extremities; 1,604 are simple fractures, luxations, and sprains, and 840 are injuries of a miscellaneous nature.

Surgical statistics of the war.—Until June 30, 1878, 227,308 surgical cases and 40,577 operations, giving a total of 267,885 cases, had been entered on the permanent records of this division of the office. To these have been added during the year ending June 30, 1879, 1,062 surgical cases and 19 operations, giving an aggregate of 268,966 cases now collected. In 3,957 instances additional data to surgical cases were obtained from reports of pension-examiners, from surgical journals, and from correspondence with medical officers who served during the war. In 1,537 cases additional information was obtained from the Pension Office, and in 2,060 cases from the Record and Pension Division.

ARMY MEDICAL MUSEUM.

Surgical section.

Specimens in the Museum, July 1, 1878	6,874
Specimens in the Museum, July 1, 1879	6,947
Increase during the year	73

Medical section.

Specimens in the Museum, July 1, 1878	1,421
Specimens in the Museum, July 1, 1879	1,497
Increase during the year	76

Microscopical section.

Specimens in the Museum, July 1, 1878	8,008
Specimens in the Museum, July 1, 1879	8,263
Increase during the year	255

Anatomical section.

Specimens in the Museum, July 1, 1878	1,948
Specimens in the Museum, July 1, 1879	1,999
Increase during the year	51

Section of comparative anatomy.

Specimens in the Museum, July 1, 1878.....	2, 164
Specimens in the Museum, July 1, 1879.....	2, 241
Increase during the year.....	77

Miscellaneous section.

Specimens in the Museum, July 1, 1878.....	657
Received, 510—transferred, 556	46
Specimens in the Museum, July 1, 1879.....	611

The contributors to the Army Medical Museum were 7 surgeons, 28 assistant surgeons, 13 acting assistant surgeons, 5 hospital stewards, 5 line officers, 35 civil practitioners, and 7 other civilians.

Thirty-six thousand and twenty-one visitors registered at the Army Medical Museum during the year. One hundred and seventy-eight negatives and 1,856 photographic prints of surgical subjects were made. Six hundred and twenty-six photographic prints were distributed among medical colleges and contributors to the Army Medical Museum and Library.

MEDICAL AND SURGICAL HISTORY OF THE WAR.

During the fiscal year the work on the second medical volume of the Medical and Surgical History of the War steadily progressed under the direction of Surgeon J. J. Woodward, the officer in charge of the work, and the stereotype plates of the text were completed during the month of March, 1879. Copious indexes were subsequently prepared, and the work having been put to press, both the issues authorized by the law have been printed, and will be laid before Congress so soon as it assembles. This volume completes Part II of the Medical and Surgical History of the War.

The medical and surgical volumes of Part III, which will complete the whole work, are both under way. The final arrangement for the printer of the materials for the third medical volume has been commenced, and most of the illustrations required are already prepared. The work on the third surgical volume is still further advanced, under the direction of Assistant Surgeon George A. Otis, U. S. A. During the year the stereotyping of 100 pages, from page 101 to page 200 (inclusive), has been completed, and 105 drawings on wood and 101 wood engravings have been made for this volume.

PROPERTY DIVISION.

The following is a summary statement of the work performed in the Property Division of this office during the fiscal year ending June 30, 1879:

Letters received and recorded.....	4, 219
Letters sent and recorded.....	2, 071
Indorsements sent and recorded.....	494
Claims and accounts examined, settled, forwarded, or referred	586
Accounts current examined and forwarded to the Treasury.....	89
Vouchers and subvouchers pertaining to accounts current examined	2, 418
Statements of funds received and forwarded	272
Accounts of sales of condemned property, with vouchers, settled and forwarded.	81
Property returns examined and settled	494
Property returns examined and suspended.....	40
Miscellaneous notifications and certificates issued.....	1, 430
Aggregate	12, 194

LIBRARY.

About 3,000 volumes and 3,500 pamphlets have been added to the library during the past year, making the total number about 49,000 volumes, and 53,500 pamphlets.

The first part of the Index Catalogue has been sent to press, an appropriation having been granted by Congress at its last session for printing the first two volumes.

MISCELLANEOUS.

The requirements of the Army as to medical officers during the past year have been as follows:

Number of permanent posts	151
Number of temporary posts and substations	22
Total	173
Number of military expeditions in the field during the year	32

These expeditions required the services of 41 medical officers. There were also 60 medical officers reported to this office as having been on duty with scouting parties.

The Army Medical Examining Board convened in New York City on the 7th of November, 1877, for the examination of assistant surgeons for promotion, and of candidates for appointment in the Medical Corps of the Army, has been continued in session throughout the year. Since rendering my last report six candidates for appointment have been found qualified and approved by the board, four of whom, together with the two who had been approved, but whose names had not been submitted for appointment at date of my last report, have been appointed and commissioned assistant surgeons; the names of two have not yet been submitted for appointment. The approved candidate, whose confirmation previously failed in the Senate, has been confirmed and commissioned assistant surgeon.

The following is a recapitulation of the work thus far performed by the Army Medical Examining Board:

Number of assistant surgeons examined for promotion	25
Number of candidates for appointment in the Medical Corps invited to appear for examination	130
Number of candidates found qualified	13
Number of candidates rejected	27
Number of candidates who withdrew after partial examination	52
Total number examined	92
Number of candidates who failed to appear for examination	13
Number of candidates who declined to appear for examination	8
Number of candidates remaining to be examined	17

Total number invited but not examined

38

At the date of my last report there existed 15 vacancies in the Medical Corps in the grade of assistant surgeon. During the past year 1 surgeon, with the rank of major, has been retired; 1 surgeon, with the rank of major, and 1 assistant surgeon, have died; 1 assistant surgeon has been dismissed; 2 assistant surgeons have resigned, and 7 appointments of assistant surgeons have been made; leaving at the present time 2 vacancies in the grade of surgeon, with the rank of major, and 12 in the grade of assistant surgeon.

The deaths occurring among medical officers since my last report are as follows:

Maj. Samuel A. Storrow, surgeon, died at San Francisco, Cal., July 12, 1879.

Capt. Jenkins A. Fitzgerald, assistant surgeon, died at Columbia, Pa., August 11, 1879.

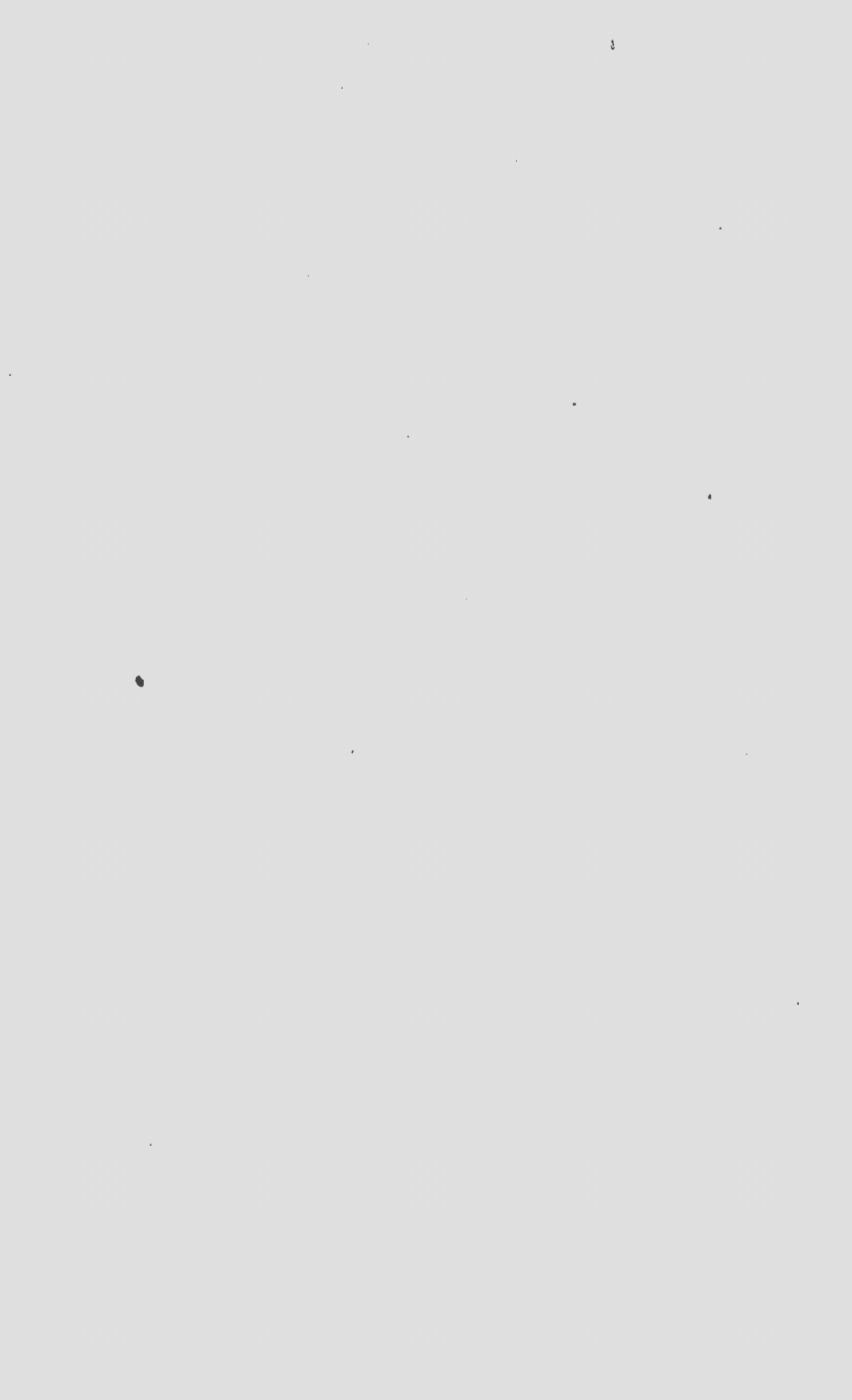
Brigadier-General Clement A. Finley, Surgeon-General (retired), died at his residence in West Philadelphia, September 8, 1879. General Finley entered the Army as surgeon's mate, First Infantry, August 10, 1818, and was appointed assistant surgeon June 1, 1821, surgeon, July 13, 1832, Surgeon-General, May 15, 1861, and was retired April 14, 1862, at his own request. He was appointed brigadier-general, United States Army, by brevet, March 13, 1865, for "long and faithful service in the Army."

At the present time there are 13 medical officers on sick leave of absence, of whom 8 have been found incapacitated for active service and have been recommended for retirement by Army retiring boards; 6 are on ordinary leave of absence, after a tour of duty on the remote frontier; leaving 154 medical officers for duty.

J. K. BARNES,
Surgeon-General, U. S. Army.

The Hon. SECRETARY OF WAR.

REPORT OF THE PAYMASTER-GENERAL.



REPORT

OF

THE PAYMASTER-GENERAL.

WAR DEPARTMENT,
PAYMASTER-GENERAL'S OFFICE,
Washington, D. C., October 10, 1879.

SIR: I have the honor to submit my annual report of the transactions of the Pay Department for the fiscal year ending June 30, 1879.

I append tabular statements in detail showing the fiscal operations of the department for that year, concisely stated as follows:

RECEIPTS AND DISBURSEMENTS DURING THE FISCAL YEAR ENDING JUNE 30, 1879.

Balance in hands of paymasters, July 1, 1878.....	\$1, 528, 739 78
Amount received from Treasury.....	12, 830, 738 88
Amount of Maj. G. G. Hunt, late disbursing officer Freedman's Bureau.....	101, 708 37
Amount of soldiers' deposits.....	370, 770 38
Amount of paymasters' collections.....	486, 238 67
Total to be accounted for.....	15, 318, 196 08

Accounted for as follows:

Disbursements:

To Regular Army.....	\$12, 000, 250 94
To Military Academy.....	206, 872 79
To volunteers, claims of freedmen, &c., on Treasury certificates.....	325, 728 68

Total disbursements..... 12, 532, 852 41

Surplus funds deposited in Treasury..... 439, 799 94

Paymasters' collections deposited in Treasury..... 486, 238 67

Balance in hands of paymasters June 30, 1879, to be accounted for in next report..... 1, 859, 305 06

Total accounted for..... 15, 318, 196 08

I have again to recommend legislation to rescind so much of the second section of the act of July 24, 1876, as forbids payment of mileage for travel "on any railroad on which troops of the United States are entitled to be transported free of charge." I would respectfully submit that an officer traveling without troops is not in any position to execute or carry out any policy towards these railroads. This can only be efficiently done by the Quartermaster's Department, in providing for the transportation of troops. Mileage is a substitute for payment of actual expenses to an officer traveling, without troops, under orders. The latter system reimbursed to an officer more than the bare railroad or stage fare, and gave him, under certain limitations, repayment of hotel expenses. Thus when mileage is denied to officers traveling over certain roads, more is accomplished, by this mulcting of the officer, than

to cause the roads "to transport the troops and property of the United States free of all cost, charge or expense to the United States." Also the officer to make use of the privilege of free transportation over such road must obtain transportation orders in advance from the quartermaster. This could avail him if his travel was only over that road; but in purchasing in advance through-tickets over long routes (having free roads on portions of the line) the railroad offices will allow nothing for such transportation orders. Thus the officer in practice not only forfeits mileage over such road, but cannot really avail himself of free passage over it. I present these points of hardship, notwithstanding the reduction, by a recent decision of the Second Comptroller, of the number of such roads to nine, as announced in General Orders No. 58, of 1879. The anomaly remains on the statute-book and should be repealed.

In renewing my recommendation for the enactment by Congress of the *annuity scheme*, it is natural to recur to the number of officers who have been killed in battle with the Indians during the last twelve months, and to the language of your annual report of November 19, 1877, which said "the deaths of officers on the frontier in recent campaigns against the hostile Indians bring forcibly before us the necessity of encouraging and enabling officers, by their own regular and voluntary assessment, to provide an annuity for those who are dependent upon them for support."

A former member of Congress (not a member of the present Congress) once said to me, "If this scheme becomes a law, on the eve of a great war a large number of officers will join, which, after very numerous casualties in battle, will bring heavy payments on the Treasury." I replied, "The more the better. That is just what we would wish. For, 1st, the larger the number who join, the more surely the statistics will, in the long run, be made good, and the government be secure from loss; and, 2d, it is for a state of war we especially recommend this scheme, when the widow and the orphans would have been, to some extent, provided for by the forethought of the officer."

Major-General Hancock in a report of October 19, 1876, strongly advocates the annuity scheme, and quotes the very pertinent recommendations of Lewis Cass, when Secretary of War, in his annual report of November 29, 1833, and of Joel R. Poinsett in 1837. The former said:

A moderate and stated deduction from the pay of each officer would create a fund which would afford essential relief to many who otherwise would be exposed to want and penury, and might soothe the declining years of meritorious officers, who may have necessarily expended in the maintenance of their families the whole allowance made to them by law, and who, without such an arrangement, would look forward with anxiety to the future.

Mr. Poinsett said:

I beg leave to reiterate that which proposes some legal organization for the purpose of establishing a fund for the support of invalid officers, and the widow and children of such of them as may die in the service. This may be done by making a moderate reduction from their pay to such an amount and in such manner as may be agreed upon by the officers themselves.

There appears to be a large number of the most experienced officers in favor of an increase of the pay of the serjeant-majors and quartermaster-serjeants of regiments, and of first serjeants of companies. In my annual report of October, 1876, I concurred in recommending such increase, proposed in a bill, H. R. 2936, of that Congress. Since that date, experienced colonels, such as Col. H. J. Hunt, of Fifth Artillery, and Col. O. B. Willcox, of Twelfth Infantry, have made such recommendations. The latter goes so far as to urge \$50 per month for serjeant-

majors and quartermaster-sergeants, and \$45 per month to first sergeants.*

Colonel Willcox now commands the Department of Arizona, and his case forces on me the conviction that the President should, by legislation, be given the power to direct, in special cases whenever he thinks proper, payment of an officer according to his brevet rank. This would be particularly proper for an officer commanding a department or an army in the field. The law now forbids any payment for brevet rank.

The legislation of 1869 concerning brevets is very wise, and should have been adopted a half century ago. It limits the power to confer commissions by brevet to "time of war and for distinguished conduct and public service in presence of the enemy"; and the special assignment by the President is necessary to entitle an officer to command under said brevet. All governments should have the power to reward and stimulate distinguished conduct in the field, and if, on special occasions, the brevet shall also bring pay, the honor conferred would be the more signal and substantial.

The number of deposits made by enlisted men, under the act of May 15, 1872 (sec. 1305, R. S.), during the last fiscal year was 6,807, amounting to \$370,770.38; during the previous year the number was 5,524. This is a considerable increase in the number, but the average of the amount of each deposit is less.

The following is a tabular statement of amount deposited and amount repaid during the last seven fiscal years:

	DEPOSITED.			REPAID.		
	Number of deposits.	Amount of deposits.	Average of deposits.	Number of deposits repaid.	Amount of deposits repaid.	Amount of interest paid.
Fiscal year ending June 30, 1873	2,217	\$209,850 38	\$94 65	52	\$6,688 59	\$71 00
Fiscal year ending June 30, 1874	4,971	346,609 56	69 72	611	55,316 25	1,695 15
Fiscal year ending June 30, 1875	5,105	325,255 80	63 71	3,880	292,668 94	13,289 84
Fiscal year ending June 30, 1876	*14,252	435,912 68	30 58	7,406	326,856 01	15,509 44
Fiscal year ending June 30, 1877	5,651	328,585 05	58 15	8,440	358,559 95	20,466 93
Fiscal year ending June 30, 1878	5,524	346,243 94	62 68	3,182	145,667 91	8,420 24
Fiscal year ending June 30, 1879	6,807	370,770 38	54 47	4,926	257,854 48	17,706 93
Totals	44,527	2,363,227 79	53 74	28,497	1,443,612 13	77,159 53

* This large number of deposits in the fiscal year ending June 30, 1876, was exceptional, and due to the non-appropriation for half of June in that year.

The number of desertions in the Army during the last fiscal year was 1,965; in the previous year 1,672. This increase we will hope is temporary. The number in the cavalry was 662 against 776 during the previous year; the number in the infantry was 937 against 608 in the previous year, showing an unaccountable increase of the number of desertions in that branch of the service.

BOUNTIES, ETC., DUE COLORED SOLDIERS.

The second section of the sundry civil appropriation act of March 3, 1879 (published in General Orders No. 42, of 1879), provided—

That all sums due upon certificates issued or which may be issued by the accounting officers of the Treasury in settlement of claims for pay, bounty, prize-money, or

* Brevet Maj. Gen. W. Merritt, colonel of Fifth Cavalry, in October number of the *United Service Magazine*, recommends "seventy-five dollars a month for non-commissioned staff officers and first sergeants of companies," and duty sergeants from forty to fifty dollars a month.

other moneys due to colored soldiers, sailors, or marines, or their legal representatives, shall be paid by the officers of the Pay Department of the Army, under the direction of the Paymaster-General, who is already charged with the payment of like dues to white soldiers.

By the act of June 10, 1872 (Statutes, 17, p. 366), the Bureau of Refugees, Freedmen, and Abandoned Lands was discontinued from the 30th June, 1872, and "all acts or parts of acts pertaining to the collection and payment of bounties or other moneys due to colored soldiers, sailors, or marines, or their heirs," were thereafter to be carried into effect by the Secretary of War. Under this act, said duty, by the direction of the War Department, was devolved upon what was called "the Freedman's Branch of the Adjutant-General's Office."

Under the act of March 3, 1879, I designated, under instructions to him dated March 8, 1879, Maj. A. B. Carey, paymaster, to take charge of said duties in this department. He had already for some time been charged with the payment of like dues to white soldiers paid on Treasury certificates. The records, papers, &c., were transferred by May 5, 1879, to Major Carey, by Maj. G. G. Hunt, chief disbursing officer Freedman's Branch of Adjutant-General's Office, and \$100,708.37, funds for payment of said claims.

I append to this report a letter from Major Carey of 27th ultimo (marked Appendix A), setting forth the operations of his office under the act of March 3, 1879.

The great object sought has been the payment of the moneys due (not a mere check) to the identical colored soldier or his heirs, for experience had shown that they were peculiarly liable to imposition and fraud. Hence the original legislation on this subject (vol. 15, p. 26, of Statutes) in the joint resolution of March 29, 1867. All the precautions enjoined in that act are still in force; and the recent act of March 3, 1879, recognizes the method of "postage and post-office money-orders," which had been previously practiced by authority of the Secretary of War. The Post-Office Department has carefully and efficiently co-operated with this office in the discharge of this duty.

Respectfully submitted.

BENJ. ALVORD,
Paymaster-General, U. S. A.

To the Hon. the SECRETARY OF WAR.

APPENDIX A.

WAR DEPARTMENT,
PAYMASTER-GENERAL'S OFFICE (BOUNTY DIVISION),
Washington, D. C., September 27, 1879.

SIR: In compliance with your instructions I have the honor to submit the following relative to the payment of claims for bounty, arrears of pay, &c., due colored soldiers, sailors, and marines, or their heirs, under joint resolution of Congress of March 29, 1867, and section 2 of the act of March 3, 1879, to which duty I was assigned by your letter of March 8, 1879. Section 2 of the act of March 3, 1879, making appropriations "for sundry civil expenses of the government." devolved the payment of colored claims for pay, bounty, prize-money, &c., upon the Pay Department of the Army, and, as soon as practicable after the passage of the act, the Freedman's Branch, Adjutant-General's Office, commenced the transfer of such records, papers, &c., as were necessary to continue payments, together with all funds and unpaid claims. The number of unpaid claims received to May 5, the date of last transfer, was as follows:

For "pay, bounty, &c., due colored soldiers".....	724
For "pay, bounty, and prize-money due colored sailors".....	244
For "commutation of rations due colored soldiers".....	9

A total of 997, for the payment of which the sum of \$101,708.37 was received by me from Maj. G. G. Hunt, chief disbursing officer, Freedman's Branch, Adjutant-General's Office.

The number of claims paid to June 30 (including those in which funds were returned to the Treasury) was 54, amounting to \$4,951.59, leaving 923 unpaid claims in my hands on July 1, 1879, amounting to \$96,756.78.

There was appropriated by Congress to meet the expenses incurred on account of the payment of these claims to June 30, 1879, \$4,000, of which \$1,818.40 was disbursed and \$2,181.60 returned to the Treasury.

Of the claims received from the Freedman's Branch of the Adjutant-General's Office, there have been paid from July 1 to August 31, 1879 (including those in which funds were returned to the Treasury), 104, amounting to \$9,162.20, leaving 819 unpaid claims of this class in my hands and \$87,594.58.

Of the \$50,000 appropriated by the act of March 3, 1879 (under head of "Pay of two and three years' volunteers, reappropriated"), for the payment of colored claims issued after the passage of that act, and prior to July 1, 1880, eleven (11) claims, amounting to \$794.14, have been paid to August 31, 1879, leaving \$49,205.86 available.

Three hundred and twenty-four colored claims (appropriated for by the act of March 3, 1879, scheduled in Executive Document No. 30, Forty-fifth Congress, second session), received from the Second Auditor, have been paid from July 1 to August 31, 1879, amounting to \$14,086.57.

For the fiscal year ending June 30, 1880, there is appropriated by the act of March 3, 1879, the sum of \$10,000, to meet the expenses incurred in the payments of colored claims, which it is believed will be sufficient.

Very respectfully, your obedient servant,

A. B. CAREY,
Paymaster, United States Army.

Brig. Gen. BENJ. ALVORD,
Paymaster-General of the Army, Washington, D. C.

UNITED STATES MILITARY ACADEMY.

UNITED STATES MILITARY ACADEMY

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 whom 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 $47\frac{1}{2}$. The average of graduates at the Academy for the same years was $42\frac{1}{2}$; 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 excellences, 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 feet 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' cers' 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 assistant-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'BETRNE,
Captain Twenty-first Infantry, A. D. C., Disbursing Officer.

UNITED STATES MILITARY ACADEMY,
West Point, N. Y., June 11, 1879.

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	1,856 96
cadet quartermaster, shoes	6,544 59	dancing	3 71
cadet quartermaster, laundry de- partment	9,294 83	cadet subsistence department	531 70
barber, shoeblack, &c	2,172 13	dialectic society	40
baths	738 79	traveling pay	1,326 00
confectioner	374 00	pay	152,143 50
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
<hr/>	
Showing an increase for the 16 months of	1,469 31
Total expenses for this period	6,122 85
<hr/>	
Showing the gross charges to have been	7,592 16
<hr/>	
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.

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 cancelled.	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	2	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	.....	88
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, $4\frac{1}{10}$ 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, $3\frac{7}{10}$ 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, 1878.

REPORT OF THE BOARD OF COMMISSIONERS OF
THE SOLDIERS' HOME.

REPORT

OF THE

BOARD OF COMMISSIONERS OF SOLDIERS' HOME.

OFFICE OF THE BOARD OF COMMISSIONERS OF THE
SOLDIERS' HOME, ROOM — WINDER BUILDING,
Washington, D. C., October 21, 1879.

SIR: I have the honor to submit the annual report of the Board of Commissioners of the Soldiers' Home for the year ending September 30, 1879, as required by the Regulations for the Home, Article I of which directs that the Board "at their meeting in October will make an annual report of their proceedings to the Secretary of War for the information of Congress."

At the monthly meetings of the Board all the members have been present, and the accounts of the treasurer for the preceding month have been audited at each meeting.

The condition of the buildings and grounds has been such as to require but few important changes during the year and no extraordinary repairs.

During the first part of the year covered by this report a permanent surface drain was laid from a point near the northwest gate, along the west line, to a point connecting with the natural drainage to the lake, near the principal entrance to the grounds. This work was necessary for the protection of the stone foundation of the fence on the west line, which would have soon been undermined by the flow of surface water from the western slope gathering at the base and confined inside the line instead of spreading as it formerly did through the old fence.

Early in the spring of this year a new drive was constructed in the extreme southern portion of the grounds upon a survey made last year to complete the circuit by the south avenue and avoid a portion of the drive passing an unsightly corner containing an old gravel pit and the *débris* gathered from fallen timber, &c.

The Home cemetery was enlarged this season by extending a stone wall on the east side and connecting with it a substantial fence enclosing all the ground to the extreme north point of the Home property. Within this new addition, and bordering immediately upon the old cemetery, was a large excavation made to procure gravel for walks and drives. This has been filled and graded and for the most part plotted uniformly with the old cemetery. A great portion of the ground is covered with a fine growth of native hard-wood trees, and it can be made with comparatively trifling expense an exceedingly beautiful and fitting place for the purpose it is intended.

In the month of June last a three-inch water-supply pipe was laid from the steam-pumps to the "Home farm" buildings, providing for sufficient water on the farm for all purposes.

All needed repairs to fences and buildings have been made. They have been chiefly of exterior painting, &c., required for their preservation.

In the government of the inmates, and in the measures taken for their happiness and welfare in every respect, no changes of system or regulation have been made. All matters in this respect within the control of the Commissioners and the officers of the Home have been satisfactory.

The officers of the Home have been attentive and efficient in the discharge of their duties. No changes have occurred in the roster.

The record of inmates shows the following changes:

Number receiving the benefits September 30, 1878.....	567
Number admitted during the year:	
Regular	120
Temporary	39
Number readmitted	75
	801
Dropped by withdrawal, absence without leave, &c.:	
Regular	168
Temporary	29
Number dismissed.....	4
Number died	31
	232
	569

I have the honor to be, sir, very respectfully, your obedient servant,

J. K. BARNES,

Surgeon-General, U. S. A., President Board of Commissioners.

The Hon. SECRETARY OF WAR.

REPORT ON THE STATE, WAR, AND NAVY
DEPARTMENT BUILDING.

REPORT ON THE STATE, WAR AND NAVY
DEPARTMENT BUILDING

REPORT

ON

CONSTRUCTION OF STATE, WAR, AND NAVY DEPARTMENT BUILDING, 1879.

OFFICE OF BUILDING FOR STATE, WAR,
AND NAVY DEPARTMENTS, OLD BUILDING,
NAVY DEPARTMENT, SEVENTEENTH STREET,
Washington, D. C., July 1, 1879.

SIR: I have the honor to submit the following report of operations pertaining to the construction of the building for State, War, and Navy Departments in my charge for the fiscal year ending June 30, 1879:

EAST WING, OR NEW NAVY DEPARTMENT.

As shown by my report for the last fiscal year, operations looking to the completion of the east wing of the building at the earliest possible day were being pushed at the close of that year with all the energy that the case demanded. The force of 525 men employed at that time was subsequently somewhat increased, and the working force was at all times as large as could be conveniently handled. Tables showing the number of men employed and the contracts in force during the year are given further on.

Following is a history of the progress of the work during the year, operations being classed under a few general heads:

CAST-IRON WORK.

The cast-iron door and window frames and trimmings were essentially finished and in place about the middle of the autumn, although the very last piece was not completed until December 24. This work constituted a large and important item in the construction of the building, and was, from its nature, prolonged and tedious. The total weight of castings of this class alone amounted to 545½ tons. All the washboards and stairstrings are of cast iron, about one-fourth inch in thickness, and are secured to the brick walls with expansion bolts. This work was commenced on the 1st of July, 1878, continued as rapidly as the contractor could turn it out, and was completed on March 1, 1879.

The cast-iron ornaments for the three pediments of the pavilion roofs on the east front were secured in their places between July 18 and August 9. They were then at once thoroughly painted and sanded.

The iron work for the dome of the main stairways was much delayed in the contractor's hands, the first delivery not being made until August 27. This consisted of a portion of the wrought-iron framework and girders for carrying the cast-iron work, which constitutes the entire dome, including all its ornamentation, even to the light sash containing the glass of the skylight. The girders with their upper connections sus-

tain also a narrow marginal flooring in the attic around the skylight, capable of carrying a heavy load of any articles likely to be stored there to the extent of 200 pounds per square foot. The framework was in place and the attachment of the cast-iron shell of the dome was commenced on October 1. The whole was completed and ready for painting on December 4. The architectural and ornamental features, as well as the construction of this dome, were designed in this office.

HEATING AND VENTILATION.

As shown by my last annual report, the heating apparatus was mainly in place at the close of the last fiscal year, and most of the ventilating flues were ready for the registers.

On the 15th of August the heating apparatus, being on the hot-water system, was filled with water for the first time. Fires were lighted in the furnaces on the 22d of the same month, to test the condition of the immense number of joints in the apparatus and the circulation of the water, with an entirely satisfactory result in both particulars. But few joints or valves required any tightening or repacking, and this being immediately done, the apparatus was ready for use. The suspended system of main flow pipes was covered in the month of December with a non-conducting coat of asbestos board, hair felt, heavy paper, and canvas, applied over each other in the order mentioned.

MAIN STAIRWAYS.

The last stone of the main stairs—so nearly completed at the close of the last fiscal year—was set on the 18th of July. It was necessary to await the completion of the plastering and other rough work before the hand-railing and balusters could be safely erected upon the stairs and landings. The railings of mahogany had been commenced the previous June, and were ready to go in place about the first of December, at which time it had been expected to have on hand a sufficient number of balusters (bronze) to commence setting them up. A contract was made for the balusters, including the bronze hardware for the building in general, on the 19th of the previous September; but none of the balusters were received at the building until March 26, and then only a very small number. The erection of the railing was at last begun on the 2d of April, and has been continued to the present time as fast as the balusters were delivered. At this date there are still lacking one baluster for the first story, and the two newel posts for the basement story. The railing has been finished and polished, however, down to these points. The contractors for the bronze work seemed to labor under unexpected difficulties, while the nature of the work rendered it inexpedient for the United States to cancel the contract and procure the work elsewhere. The balusters and newel posts were designed in this office.

PLASTERING AND STUCCO WORK.

The plastering and stucco work was well under way at the close of the last fiscal year, and was continued vigorously in all its branches from that time until it was essentially finished, about February 1. Commencement was made in the fourth and attic stories, and the work continued downward through the building in the usual manner. Plastering of the basement was begun on September 28, and in the main stairway-wells on October 22.

All the cornicing and other stucco work was completed on January 7, excepting that at the elevator landings. All branches of this work were executed by the workmen at the building, all the plaster ornaments and molds being cast and finished there.

The profiles of cornices and moldings and the plaster ornaments thereon were copied from the similar work in the south wing, in order to continue a uniform design and style of finish throughout the interior, as must be done upon the exterior of the building. This will render the opening of the corridors through from wing to wing entirely practicable whenever it should be desirable.

WOODWORK AND FLOORING.

The woodwork in the building consists, besides the flooring of rooms, of the doors, window-sash, and water-closet finish. The latter is generally of black walnut and the two former generally of mahogany—the doors of the cellar and a part of the attic and the finish of the cellar water-closets being of white pine.

The greater part of this work was got out by hand in the shops during the summer, and was put together and into place during the late fall and winter under the natural heat of the building. For this purpose the heating apparatus was kept running at a suitable temperature from the 1st of September until the building was completed and turned over to the departments.

Hanging of windows was begun in the fourth story on October 3, and the hanging of doors in the attic on November 30. Laying of the cement floors of the attic was begun on August 23, and finished September 16. That of the pine floors was begun in the fourth story on October 1. The marquetry floor of the Secretary's room on the second floor was commenced by the contractor for that work on the 17th of March, and was the last thing finished in the building before it was turned over to the departments.

GLAZING.

For all windows and door transoms in the building the glass used was the best American double thick, and the best British polished plate ($\frac{1}{4}$ inch thick), the former being used only in the windows of the sub-basement, and the latter throughout the remainder of the building. All the skylight glass exposed to the weather had been set in place during the previous fiscal year. On September 26 the glazing of window-sash was commenced in the fourth story, and was mainly completed throughout the building in season to close it against the winter weather.

The ground and colored glass of the skylight over the main stairways was set during the month of March, and was finished on the 28th of the same month.

TILING.

Excepting the cellar or sub-basement story, all the floors of corridors and water-closets throughout the building, and also the floors of the upper attic, were tiled. The material used consisted of marble from the quarries at Swanton, Vt., excepting the black tiles and borders in the corridors and stairway landings of the attic; the former consisting of black slate tiles—a surplus from the construction of the south wing—and a part of the latter being from Glens Falls, N. Y.

All the tiles are twelve inches square by 1 inch in thickness, and are laid alternately white and black, well bedded in hydraulic cement

mortar. The work was commenced on September 17, in the north attic corridor, and progressed as rapidly as other operations would permit, until it was finished early in January, except the elevator landings, which were tiled later. The area of tile flooring is about 21,000 square feet, nearly half an acre.

PAINTING AND HARD WOOD FINISHING.

This branch of the work was carried on in its proper order and with unusual care, furnishing not only a most durable protection to the iron and wood work, but bringing out the ornamentation of the one and the natural beauty of the other in a pleasing degree. All the iron work received five coats of paint besides a thin wash of light color on some of the raised parts.

The materials used included about 3,400 pounds of red lead, 3,700 pounds of white lead, and 460 gallons of raw linseed oil; figures which furnish a basis for a rough estimate of the great extent of surface to be covered.

As all the iron-work was delivered at the building unpainted there was no difficulty in applying the priming coat of red-lead paint, as was done, in a thorough manner.

The heavier part of the painting and finishing was done during the early winter months, but it was not entirely completed until the middle of April. The dome of the stairways was painted and decorated by the regular force on the building in the early part of the winter. The painting and decoration of the Secretary's room and the four communicating rooms north and south of it was performed under contract between the 5th of February and the 3d of April.

PLUMBING.

My last annual report showed that all the principal pipes for the water and gas supply and for drainage had been put in during the previous fiscal year. The work remaining to be done consisted, therefore, of the plumbing proper, namely, the placing and connecting all the water-closets, urinals, wash-basins, slop-sinks, and bath-tubs, and supplying them with water, hot or cold, or both, as the case might be.

The Demorest water-closet was used throughout the building excepting the sub-basement, which was provided with plain hoppers and automatic spring-valves.

There are two apartments on each of the six floors of the building set apart for water-closet uses, each of which contains four closets, three urinals, a wash-basin, and a slop-sink, excepting the two cellar rooms, which contain each four water-closets and two urinals only.

In addition to these apartments there are two completely fitted rooms with bath-tub, water-closet, &c., in communication with the Secretary's suite of rooms on the second floor. There were also provided a two-basin wash-stand in the room intended for the draughtsmen of the Bureau of Steam Engineering, and a three-basin wash-stand and bathroom adjacent to each of the rooms for the engineers in charge of the heating-apparatus and machinery in the cellar.

The work was commenced on the 18th of November and was finished on the 1st of March. All pipes and fittings used were of ample size; good ventilation was secured, and the entire work was planned and executed upon the most approved sanitary principles, and in the most substantial manner.

As the Potomac water service, from which the building draws its supply, flows with certainty no higher than the second floor, two sets of steam pumps and tanks were provided. The tanks have a capacity of about 4,100 gallons each, and may be easily filled in twenty minutes. For a further description of this apparatus reference is made to the copy of a letter to the honorable the Secretary of the Navy, further on.

GAS-FIXTURES, MANTELS, GRATES, ETC.

The hanging of the gas-fixtures was commenced on the 13th day of March, and was completed on the 15th day of April. There were hung 262 chandeliers and 89 brackets, of all kinds. As a rule the rooms were provided with 6-light chandeliers; but there were also a considerable number of 5-light chandeliers having center slides with argand burners, for use over the desks of principal officers and clerks. All principal corridor fixtures were 4-light chandeliers.

The setting of mantels was begun on the 9th of March and finished on the 10th of April. There were thirty-three mantels of marble and two of slate. Each mantel contains a fireplace, which is also a ventilating duct, provided with a handsome grate and a soapstone lining. The lining of fireplaces and setting the grates followed closely the erection of the mantels, and was completed April 14.

Each of the principal rooms, such as those to be occupied by heads of bureaus or their chief clerks, was provided with a set of picture rods securely attached to the brick walls or iron partitions about 4 inches below the stucco cornice. They consisted of large brass pipes, gilded, and containing closely-fitting round iron rods for stiffness, and were secured by brass bolts or screws having heads of appropriate shape, size, and finish. Twenty-eight rooms were fitted with these rods, which amounted in all to 1,359½ running feet.

ELEVATORS.

Two steam elevators, communicating with every floor in the building except the cock-loft—seven in all—were provided at points equidistant from the center of the building. The south elevator is a handsome passenger car, designed in this office, while the north elevator car is of a plainer though quite tasteful design, and is intended for use in elevating parcels of freight as well as passengers.

These machines as arranged and constructed are the best of steam elevators, being provided with every safeguard against serious accident, and requiring only that degree of reasonable care and intelligent handling that should be unremittingly practiced with every apparatus to which human life and limb are intrusted.

The preliminary work of getting the elevators into place was commenced on the 7th of November. Foundations for the engines in the cellar were commenced on February 18, and steam was admitted for the first time on the 26th of March. Everything, including the gallery fronts, annunciators, and gas-lights, was fully completed on the 11th of April.

LIBRARY.

This large room, situated on the fourth floor, in the center pavilion, remains unfinished, owing to the complicated and special nature of its design. Considerable time was necessarily consumed in the preparation of detail drawings and the models of ornamental work. All the

architectural, ornamental, and constructive features were designed and arranged in this office, excepting the encaustic tiled floor, the original design of which was somewhat modified to suit that of the lowest competitive bidder.

The walls, ceilings, gallery-flooring, and book-cases will consist entirely of cast iron, with marble panels and a skylight of white ground glass.

The general arrangement of space embraces one large central room, two stories in height, surrounded at the second story by a gallery, and communicating through archways on the north and south sides, in each story, with alcoves containing the book-cases and the hand elevators which connect the stories.

In the month of February, the wrought-iron girders, framework, and trusses to carry alcove partitions were put in place. There are four heavy main girders, running east and west from wall to wall, for carrying the ceiling and the attic flooring. This flooring may be safely loaded with a weight of at least 150 pounds per square foot.

Proposals for the cast-iron work were invited on the 31st of December, but owing to the delay in the passage of the appropriation the contract was not entered into until March 5. The erection of the cast-iron work was commenced on the 11th of June, and is now progressing rapidly.

COURT-YARD, AREA WALLS, COAL-VAULTS, ETC.

Preparations for the following-described court-yard work were made at the close of the last fiscal year. The necessary excavations were begun on July 22, but suffered considerable delay from long-continued wet weather. The concrete foundation of the south-wing area wall was begun on September 11, the brickwork of the vaults of that wing on September 25, and the setting of stone on October 16, by which time similar parts of the walls and vaults of the east wing were well under-way. All of the masonry and the earth covering of the vaults was completed by the last of November. The iron stairs and hoists were put up during the winter.

On June 23 the laying of an asphaltum pavement, with a base of hydraulic cement concrete, was commenced upon the surface of the north and south court-yards lying over and near to the coal-vaults and steam-boiler rooms previously built. Damage to the contractor's works by fire at that time has delayed the completion of the pavement until now, but it is expected to be finished in a few days. The thickness of the asphaltum is $2\frac{1}{2}$ inches, and of the concrete base 6 inches.

The capacity of the coal-vaults of the south wing is 200 gross tons, and of each set of vaults for the east wing 150 gross tons.

So much of all this work as fell immediately opposite the rear wall of the south wing was paid for by the State Department from an appropriation available for the purpose; the cost being, for walls, coal-vaults, iron stairs, and hoist, \$8,960.50, and for the asphaltum pavement, \$462.67. The last item covered 243 square yards, equivalent to one-fourth of the surface of the entire south court-yard, and is, therefore, all that the State Department should ever be called upon to pay for the original paving of the court-yards of the building.

APPROACHES AND DRIVEWAYS.

This work comprised the sidewalk, steps, and parts of the stone buttresses of the main entrance, the fences on the east front, and the

necessary excavations and foundations therefor. It was all well started at the close of the last fiscal year, but was delayed somewhat through the summer by the non-arrival of cut stone from the contractors.

The last of the granite and blue-stone flagging arrived on August 26, after which all the masonry was finished as rapidly as possible. The last step of the main entrance was set on November 8, and the sidewalk, including the taking up and resetting to true grade of that part belonging to the south wing, was finished on November 27.

A stout movable hand-railing, to consist of a single rail with three posts, is in process of manufacture for each of the four low stone platforms projecting into the driveways from the basement corridor. The material will be heavy brass pipe and fittings, and the railings will be set in place in a few days.

Most of the iron fence was put up between the 10th and 14th of December. Grading and sodding the included plats were done in the early part of October.

On the 6th of March the work of laying an asphaltum and hydraulic cement concrete pavement in the driveways from the curbstone of Executive Avenue to the court-yards was commenced, and finished on the 27th of the same month. About this time the six candelabra posts were set up along the front, and the lanterns put up early in April.

Between May 22 and June 9 the surface of West Executive avenue, extending from the north gateway nearly to the east entrance of the State Department, was coated with good gravel, 12 inches in thickness on the center line, and well rolled. At the same time the gutter next the new curb was paved.

CLEANING DOWN STONEMWORK.

This long and tedious operation, which included pointing of the joints was begun on the 7th of October, was suspended during freezing weather, and finally completed on the 15th of April.

IN GENERAL.

It was noticed that the sheet-copper lining of the gutters on the coping of the court-yard walls, although laid with all the usual care with soft-solder connections, frequently gave way in the joints and leaked badly. Accordingly, a copper lining was devised and substituted for the old one, which will doubtless overcome the difficulty. It consists of single strips of copper made up of large sheets brazed together and connected to the roofing copper and to the edge of the coping by means of copper rivets. No sign of leakage has been discovered since the improvement was made some two months ago, nor in one trial-section which was laid in December.

A temporary covered bridge to communicate between the second story of the old building for the Navy Department and the first story of the new building was constructed in the latter part of March.

The labor needed in the several branches of direct construction or putting materials together in the building was generally employed by the United States, under skilled and careful foremen; by which means workmanship of uncommon accuracy, strength, perfection, and durability throughout was obtained. Accidents to workmen and materials have been, for the same reason, rare, and generally unimportant—a noteworthy fact when the many hazards attending their movements on

so large a scale and the tendency of workmen to become careless from familiarity with danger are considered.

At the request of the Navy Department, the Bureau of Steam Engineering was permitted to have the use of the northeast attic store-room in the south curtain from about the 1st of November. They at once fitted up the room with shelving, and commenced on the 7th of November to remove thence their record-books. By the further request of that department, effort was made to finish the long room on the court-yard side of the third story south, as far as possible, in advance of other rooms, for the benefit of the same bureau. This bureau commenced to move in their furniture on the 13th of January, and took possession with their corps of draughtsmen on the 19th of March.

It was expected at the close of the last fiscal year that this wing of the building, exclusive of the library, would be made ready for occupancy by March 1, 1879; but owing to a reduction of the hours of labor during nearly six months of the time, to conform with the similar action of the Navy Department at its yards, one month's extra time was consumed upon the work. Although essentially ready on the 1st of April, the date of full completion, excepting the library and handrailing of the main stairs, was unavoidably further delayed until the 15th of April, by the tardiness of the contractors for furnishing gas-fixtures and mantels throughout the building, and the marquetry-flooring in the Secretary's room. On the latter day, however, the work of thoroughly and neatly clearing up and locking the corridor-doors of the building was finally completed to await the time for delivering the building into the charge of the War and Navy Departments, which were to occupy it together pending the construction of the north wing. In the afternoon of April 16, 1879, the building was formally turned over to the Secretaries of War and Navy, and the keys deposited in their possession. Upon the same date there was furnished to the Navy Department (which is finally to occupy the entire wing) a set of twelve drawings, accompanied by the following memoir:

OFFICE OF BUILDING FOR STATE, WAR, AND NAVY DEPARTMENTS,
CORNER 17TH AND F STREETS,
Washington, D. C., April 16, 1879.

SIR: For the information of the departments about to occupy the east wing of the building for State, War, and Navy Departments, I have the honor to transmit, with the following remarks, twelve drawings showing the locations and arrangement of boilers, pumps, pipes, air-ducts and flues comprised in the system of heating and ventilation, the water, gas, and telegraph service, the sewerage, and the roof and area drainage of this wing.

To avoid confusion in the drawings, some pipes of minor importance have been omitted, but care has been taken that the drawings and visible parts of the systems of pipes, &c., referred to, taken together, should furnish a ready guide to a full knowledge of them.

WATER SUPPLY.

The Potomac water main entering the building branches directly to each of the main tanks in the attic, from which these branches become the discharge or service pipes. A "mixing valve" is placed in each of these pipes at the basement, first, second, and third floors, respectively, by means of which all the water-closets, down to include those in the basement, may be supplied directly from the tank, or from the Potomac, to whatever height its water may rise. The marble wash-basins in the water-closets are, however, all supplied with cold water from the tanks alone through 2-inch branch pipes taken off the main (3-inch) risers at the fourth floor. These 2-inch pipes extend down to the main trench in the sub-basement, where they become one pipe, which passes to the bath-boiler in the south boiler-room, supplying it at tank pressure, and thus furnishing a supply of hot water to the basins of the upper water-closets. The same 2-inch pipe also connects with the cold-water pipe to the Secretary's bath-rooms on the second floor, and supplies the double basin in the draughting room of the Bureau of Steam Engineering, on the third floor.

By means of two steam pumps in the boiler-rooms of the sub-basement the two main

tanks are supplied through a 4-inch rising fire-pipe in each elevator hatchway, provided with a $2\frac{1}{2}$ -inch fire-plug in the corridor of each story. A slide valve at the top of each rising pipe, actuated by means of wires from the sub-basement, will instantly throw the fire-pipe into service when required. Either pump discharges into either or both fire-pipes at pleasure.

GAS SERVICE.

A 6-inch gas main enters the building at the center of the center pavilion, branching into two 4-inch mains, north and south, respectively, which rise directly to the attic floor. From these rising mains 2-inch corridor mains are taken off at each floor, supplying gas to one-half of the story immediately below, the corridor mains in the attic floor supplying also the attic story. A stop-cock is placed in each of these 2-inch branches close to the 4-inch rising main in the water-closet pipe shafts, and provided with a special wrench to be found hanging inside the door.

The positions and sizes of gas-fixtures are indicated on the drawings. A few blind drops left just hidden in the ceiling-plaster are represented thus: "O Drop."

TELEGRAPH PIPES.

These are shown on the drawings in blue lines, and consist of $\frac{3}{4}$ -inch and $\frac{1}{2}$ -inch lead pipes embedded in the cement of the floors. They are arranged with outlets concealed under the corridor door saddles, in the positions shown, where telegraph wires may be threaded through them when it is desirable that the wires should cross or run along a corridor. Wires are expected to be conducted through rooms in plowed grooves in the wooden floors. Vertical wires may be placed in ventilating-flues.

VENTILATION.

Each room is ventilated through a fire-place or one or more registers, as the case may be, opening into flues which are located in the corridor and transverse walls. These flues are generally 13 inches by 13 inches in cross-section, and have outlets independently above the roof, or in roof-ventilators or chimneys. There are four roof-ventilators for this purpose, each provided with a coil of circulating pipes connected with the exhaust steam-pipes from the pumps and elevator-engines, to accelerate the upward currents of air.

In order to accommodate the large smoke-flues of the heating-boilers, as well as to obtain ventilation of the sewer-trenches, in the two westerly chimneys of the center pavilion, it was necessary to throw four ventilating-flues into two in each of the walls on which these chimneys stand. This was done about midway of the height of the third story. A diagram on one of the accompanying sheets indicates the room served, or the duty performed by each flue in these two chimneys.

HEATING-APPARATUS.

The apparatus for heating this wing is upon the *hot-water system*. It consists of four tubular boilers, in two pairs, connected together and with all the heating-coils in the building, by a system of flow and return pipes, in such a manner that either one or more of the boilers may heat the water and produce a circulation throughout the system.

Every part of the building, excepting the store-rooms and the two small pavilion rooms in the attic, is heated by this apparatus. It is, therefore, of necessity extensive, but not complicated; the system of piping and connections to heating-coils being uniform throughout.

It is needless to remark that the most faithful and intelligent supervision is absolutely essential to insure to the department a satisfactory heating and ventilation of the building, preservation of the apparatus, and economy in its use. No man not certainly known to possess the requisite qualities should be intrusted for a moment with the care of the heating-apparatus, steam-boilers, elevator-engines, and pumps. The men performing this duty should also have charge of the heating-coils throughout the building, as the valves and air-cocks should never be meddled with by the occupants of the rooms.

The following general rules are laid down for the proper management of the heating-apparatus:

1. The whole apparatus should always be kept full of water the year round, whether heated or not. The two small supply-tanks, with their connections in the fourth-story water-closets, are for this purpose as well as for safety-vents, and should never be empty. Thus will the pipes, &c., be preserved, by preventing the formation in the interior of a thick coat of rust each time they are laid bare. When this rule is strictly observed, few leaks need be expected for many years, unless pipes should be subjected to shocks or displacement.

2. The temperature of the water in the flow-pipes, as indicated by the thermometer near each pair of boilers in the corridor, should never exceed 210° . The average temperature will be about 160° . A temperature above 212° would not be likely to dam-

age the apparatus, as all expansion is relieved in the small tanks above mentioned; but the steam generated would tend to collect in the upper sections of the heating-coils and stop the circulation of the water. Attention to the air-cocks on the coils will cause the steam and air to be discharged and circulation resumed.

3. In cold weather the air-dampers of all the coils, both direct and indirect, should be closed at night, or whenever the building is unoccupied. The heated air with which the building is filled may thus be retained by a stoppage of its circulation and economy of fuel effected.

4. All coil-valves should be open during the night and at all times during cold weather. Moreover, they should never be entirely closed in cold weather, unless it should be necessary to draw off the water, which would otherwise be in danger of freezing.

5. Air-cocks on tops of coils should be opened every morning to blow off any accumulation of air, the usual cause of stoppage in the circulation of hot water. Some of the air-cocks may require more frequent attention than others.

6. The air-dampers of direct coils may be regulated by the occupant of the room, while those of indirect coils must be regulated by the engineer in the sub-basement. These air-dampers and the registers in wall flues furnish the means of obtaining any desirable velocity and a corresponding temperature of air-currents within certain limits. Slow inward currents are likely to be warmer than those of high velocity. Cold-air dampers at the coils should generally not be as wide open on the weather side of the building on windy days as on quiet days. When inlet dampers and registers are wide open, the outlet or ventilating registers should also be wide open, to give a good circulation and constant change of air. The outlet registers may generally be left open at all times.

7. Should it become necessary to repair a *direct* heating-coil, it may be disconnected from the system by drawing off the water from the rising pipes which feed it. This will also empty such other direct coils as may be fed by the risers. *Indirect* coils (those in the sub-basement) may be disconnected individually by merely closing the two valves and drawing off the water through the waste-pipe.

8. In case of a leak in a boiler or main pipe, requiring the water to be drawn off to make repairs, the heat in the building may be retained for a short time, twenty-four hours, more or less, according to the weather, by closing the coil-valves, and *taking care at the same time to close the air-dampers*, should the weather be freezing cold. One-half the building may be kept under heat with the water entirely drawn off the other half, by closing the valves in flow and return mains at the center of the sub-basement corridor.

No valves have been placed on the boiler connections on account of the danger of their being improperly used. Such valves closed at the wrong moment, through mistake or malicious intent, would cut off circulation and endanger the boilers. This might occur, even after the fires had been drawn, from the heat remaining in the surrounding mass of brickwork.

It is respectfully suggested that the above *eight rules* for the management of the heating and ventilation be printed and permanently posted up in each of the engineer's rooms in the sub-basement.

Very respectfully, your obedient servant,

THOS. LINCOLN CASEY,
Lieutenant Colonel Corps of Engineers.

Hon. R. W. THOMPSON,
Secretary of the Navy.

Steps have just been taken to procure 118 blind or screen doors of white pine for as many of the corridor doorways. Of this number 71 are wanted for the Navy Department and 47 for the War Department.

The contracts entered into and in force during the year are summarized in the following table:

Date of contract.	Subject.	Name of contractor.	Amount.	Present condition.
1877.				
Nov. 1	Cast-iron window and door frames and trimmings.	Jos. Hall & Co	\$58,847 71	Completed.
1878.				
Jan. 8	Flange pipe, &c., for heating apparatus.	Bartlett, Robbins & Co.	16,848 00	Completed.
8	Boilers, &c., for heating apparatus.....	.....do	12,248 00	Do.
Feb. 8	Cast-iron ornaments for pediments.....	.....do	3,000 00	Do.
15	Iron stairs, attic	C. A. Schneider & Sons	1,096 96	Do.
Mar. 25	Lime	Mary E. Godoy	\$1.08 per bbl. of 240 lbs.	Do.
28	Granite for fence and steps	Bodwell Granite Company.	\$17,632 91	Do.

Date of contract.	Subject.	Name of contractor.	Amount.	Present condition.
1878.				
May 15	Plaster of Paris	J. G. & J. M. Waters ..	\$1.24 per bbl. of 260 lbs.	Completed.
June 1	Iron work for dome of stairways	Poulson & Eger	\$9,825 00	Do.
	Cast-iron skirtings, bases, and door saddles.	Jos. Hall & Co	7,471 71	Do.
	Georgia pine flooring	C. B. Church & Sons ..	3,042 00	Do.
21	Blue-stone flagging	John Maxwell	1,957 53	Do.
July 1	Two elevators	Otis Brothers & Co ..	14,950 00	Do.
24	Plate glass	E. A. Boyd	4,262 00	Do.
Aug. 1	Marble tiles	M. Giblin & Co	6,280 40	Do.
Sept. 19	Bronze hardware and stairway balusters.	Hopkins & Dickinson Manufacturing Company.	10,777 85	Nearly completed.
Oct. 2	Plumbing materials	Thomas Somerville ..	1,520 88	Completed.
5	Iron fence, driveway gates, area stairs, &c.	Jos. Hall & Co	1,535 75	Do.
8	Marble mantels, water-closet work, &c.	Charles E. Hall & Co..	6,439 00	Do.
12	Wrought-iron girders and framework for library.	Snead & Co	7,111 00	Do.
Nov. 23	Gas-fixtures	Archer & Pancoast Manufacturing Company.	16,000 00	Do.
23	Grates	Wm. H. Jackson & Co.	1,039 00	Do.
1879.				
Jan. 23	Marquetry floor	A. H. Andrews & Co ..	1,389 60	Completed.
23	Decorative painting	John Herbold	1,800 00	Do.
Mar. 5	Cast-iron work for library	Poulson & Eger	15,200 00	In force.
June 2	Encaustic tiling	Sharpless & Watts ..	1,525 00	Do.
21	Cast-iron shelving, &c. for library	J. Vernon Campbell ..	2,840 00	Do.
17	Asphaltum pavement in courtyard	John S. Baldwin	\$1.70 per sq. yd.	Do.
July 1	Marble panels for library	Fisher & Bird	\$1,683 00	Do.

The following table shows the strength of the working force actually employed upon the east wing on the first day of each month, exclusive of the few men, numbering from half a dozen to perhaps twenty in all, usually at work for contractors in putting up certain parts of the manufactured material furnished by them:

Kind of work.	Month.												
	July 1.	August 1.	September 1.	October 1.	November 1.	December 1.	January 1.	February 1.	March 1.	April 1.	May 1.	June 1.	June 30.
Stone-work	18	18	12	16	30	44	37	21	21	1			
Tiling and marble-work			1	1	14	16	16	8	2				
Brick-work	31	24	27	36	22	24	11	23	7	1			1
Iron-work	19	17	12	11	17	23	47	50	30	17	1	2	1
Carpentry	58	57	46	47	47	63	120	117	36	16			
Plumbing, &c	1	1	1	2	2	7	11	11	5				
Heating apparatus and steam-fitting	35	7	7	6	8	14	13	5	6	5			
Sheet-metal work	2	2	2	2	2	3	3	3	2	2			
Plastering	276	277	273	283	285	172	60	35	11	3	1		
Painting	10	18	21	25	26	37	101	81	40	21			
Modeling	7	8	11	11	11	11	11	11					
Rigging, moving materials	16	17	17	17	17	16			9	11			
General laborers	33	49	57	60	62	53	24	15	16	59	2		
Contingent	27	28	27	28	28	27	22	23	7				
Totals	533	523	513	545	571	510	492	402	192	136	13	9	13

PROBABLE OPERATIONS FOR THE FISCAL YEAR 1879-'80.

As shown by the foregoing report, the library and main stair-railing are the only pieces of unfinished work pertaining to the construction of the east wing. The stair-railing will be entirely finished as soon as the parts wanted are received, probably in two or three weeks. Nearly all the material required for the completion of the library has been con-

tracted for and is in active preparation. It is expected to finish the work early in the coming fall.

No further appropriations are required for this wing of the building.

NORTH WING, OR PART OF THE NEW WAR DEPARTMENT.

An appropriation was made by Congress, and approved March 3 last, for the construction of the north wing, previous appropriations having been mainly available only for the preparation of granite for the exterior walls.

At this date there is on the ground ready for use all the cut granite, excepting five pieces, required for the sub-basement story and area walls, both front and court yard, nearly all the cut granite for the front walls of the basement story, and all but two pieces for the first story front. Some of the cut granite for the second story has already been received, while the cutting and delivery of all that remains to complete the front walls of the basement and the court-yard wall to the top of the second story are going on rapidly. Cut granite for the backing, piers, and footing course for the walls of the sub-basement or cellar is also being rapidly prepared, and will be delivered in season for use.

The first important steps to be taken towards the direct construction of this wing consisted in clearing the site. This necessitated the removal of the old building for the War Department, which stood entirely within the limits of the site—its corridor axis being only about 1 foot 9 inches southward and nearly parallel to that of the new building.

After the completion of the east wing to the extent described in the foregoing report upon it, a partial suspension of operations upon the building necessarily occurred until the old building for the War Department could be vacated by the removal of its occupants, according to a prearranged plan, to temporary accommodations in the north half of the east wing, and to the third and a part of the first floors in the old building for the Navy Department. This removal commenced immediately after the 16th of April.

Previous to this date, however (April 7), the demolition of the portico, consisting of six plain round columns with Ionic capitals, entablature, and two antæ of sandstone, from the north front of the old building for the War Department, was commenced and continued until nearly all the stones were carefully separated and safely landed on the ground. This was done in conformity with an order from the War Department to turn the stones of this portico over to the Quartermaster-General of the Army, to be transferred to the Arlington National Cemetery, where the old columns could be preserved and utilized appropriately at its portals. The stones were boxed and removed by the Quartermaster-General as fast as they were ready.

On the 9th of April the work of extending the sewer in the center of West Executive avenue northward to the north wing was commenced. This sewer was completed as far as the east wall of that wing on the 5th of May.

On the 21st of April work was commenced on the ground between the old buildings of the War and Navy Departments to remove an old temporary cement and plaster shed, fell the trees, and cut down the earth some four feet to the level of the new court-yard. This earth-cutting extended around the west end of the old building for the War Department and to the lower sidewalk of Seventeenth street, and was completed on the 16th of May.

It was expected that the old building for the War Department would

have been vacated before this time; but it was not finally turned over to this office until the 22d of May. On that day the letter of the department, giving the requisite authority, was received, and work was at once actively commenced upon the roof to tear the old building down. As large a force as could safely and advantageously work together was employed until the last brick or other vestige of the old building was removed on the 16th of June.

But comparatively little of the old material thus gained could be of service in the construction of the new building. Only a portion of the bricks would be fit to lay in the permanent walls, owing to their variable sizes and degrees of hardness, and the cost of culling and cleaning. Some of the old timber, piping, slates, and window-sashes were preserved for temporary use in the new work. The material was, therefore, piled in separate lots on the ground south of the building, while that suitable for filling only was utilized in grading of the grounds south of the Executive Mansion.

The regular excavation for the foundation of the north wing was commenced on the 17th of June, and is nearly half finished at this date.

A large supply of materials for the concrete foundation is being collected, and the necessary machinery for mixing the concrete and for working the derricks is nearly ready for use. The derricks themselves are ready for raising, and all other appliances and materials required for the work are ready or being procured in good season.

During the fall of 1878 a complete study was made of the system of heating and ventilating this wing, and the results incorporated in the plans, so that every necessary preparation and precaution for the accommodation of the boilers and the numerous pipes, flues, and air-ducts required may be observed in the beginning and continued upward with the work. The system of heating will be the hot-water one now in successful use in the south and east wings.

The following table shows the contracts entered into and in force during the year:

Date of contract.	Subject.	Name of contractor.	Amount.	Present condition.
1877. Oct. 8	Cut granite for sub-basement and front area walls.	Bodwell Granite Company.	\$50,000 00	Completed.
1878. Mar. 28	Cut granite for basement	.....do	100,000 00	In force.
July 26	Cut granite for basement and court-yard area walls.	.....do	112,000 00	Do.
Aug. 1 1879.	Cut granite for first-story front	Albert Ordway	100,000 00	Do.
Jan. 29	Cut granite for second-story front	.....do	8,203 00	Completed.
Mar. 18	.....do	.....do	160,000 00	In force.
May 8	Cut granite for basement and court-yard walls.	Bodwell Granite Company.	60,000 00	Do.
14	Cut granite backing and piers	Peirce, Rowe & Co.	88½ cts. per cubic foot.	Do.
17	Cement	F. O. Norton	\$1.05 per bbl.	Do.
17	Bricks	Amon Woodward	\$7.50 per M	Do.
17	Skewback bricks	T. E. Smithson	\$7.70 per M	Do.
17	Sand	J. B. Lord	68 cts. and 85 cts. per cubic yard.	Do.
17	Broken stone	H. J. McLaughlin	\$1.54 per cubic yard.	Do.
17	Pebbles	.....do	\$1.53 per cubic yard.	Do.

The following table shows the average number of men employed directly by the United States on the north wing during each month:

Kind of work.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June 1.	June 30.
Receiving stone			1		1			1	1	1	1	1	5
Iron-work													12
Brick-work													1
Carpentry										2	3	15	15
Modeling	1	1			1								
Rigging										7	16	18	18
Clearing site											49	95	3
Excavating											57	34	193
Contingent							5	4	20	27	27	27	26
Totals	1	1	1		2		5	5	21	46	174	202	278

PROBABLE OPERATIONS FOR THE FISCAL YEAR 1879-'80.

Having on hand the large supply of cut stone, above mentioned, for the lower stories, and other preparations having been made on a large scale, it is expected to have the masonry completed to the water-table or first-story floor by the close of the present working season. It is also expected that the balance of the cut stone required to carry all the walls to the top of the first story will be delivered this season. Between the opening of the next working season and the close of the fiscal year it is expected that the masonry of the first story will be completed.

All the masonry drawings and other office preparations for the further continuance of the work will be made as usual, so that the next appropriation will find everything in readiness for its immediate application to direct construction of the building.

ESTIMATE OF COST.

The estimated total cost of the north wing, given in detail in my last annual report, amounted to \$2,192,414.40, based upon the then existing prices. It is probable that some items would now be found too low, and others too high; but that the sum total will not be materially exceeded if appropriations are made regularly, so as not to impede operations, or the preliminary business necessary thereto.

STATEMENT OF FUNDS.

Total amount expended to date on north wing	\$560,713 92
Balance on hand at this date	457,990 11
New appropriation desired for the fiscal year ending June 30, 1881	600,000 00

The amount asked for will be needed for the preparation of cut stone and for iron-work for partitions and door and window frames and trimmings, in addition to the labor of construction.

In conclusion, I have to state that the office for the construction of this building was removed on the 29th of May, 1879, from the building on the southwest corner of Seventeenth and F streets to rooms on the western half of the first floor of the old building for the Navy Department.

THOS. LINCOLN CASEY,
Lieutenant-Colonel, Corps of Engineers.

Hon. GEO. W. McCrARY,
Secretary of War.

ANNUAL REPORT

UPON THE

IMPROVEMENT OF SOUTH PASS

OF THE

MISSISSIPPI RIVER,

SHOWING

THE CONDITION OF THE WORKS ON JUNE 30, 1879.

BY

M. R. BROWN,

CAPTAIN OF ENGINEERS, UNITED STATES ARMY.

(The 12th in number of the Inspection Reports.)

IMPROVEMENT OF THE SOUTH PASS OF THE MISSISSIPPI RIVER.

ARMY BUILDING,
New York City, September 23, 1879.

SIR: I have the honor to forward this day by express my manuscript of the Annual (or twelfth) Report on the Improvement of South Pass of the Mississippi River, with the following charts to accompany:

- No. 1. Upper end of jetties.
- No. 2. Lower end of jetties.
- No. 3. Gulf of Mexico to 100 feet depth; seaward of the end of jetties.
- No. 4. Gulf of Mexico to 300 feet depth; seaward of the end of jetties.
- No. 5. South Pass from South Pass Light-house to Bayou Grande.
- No. 6. South Pass from Bayou Grande to head of Pass.
- No. 7. Works at head of Pass.
- No. 8. Plan of jetties, curves, &c.
- No. 9. Sections of jetties, &c.

No. 9 was among the charts accompanying the eleventh report; but as no charts were included with that publication, it is again forwarded, with a particular request that this chart, together with all that are sent herewith, may be published with the twelfth report, as they are of much interest and importance, and very necessary to a clear understanding of the report.

Very respectfully, your obedient servant,

M. R. BROWN,
Captain of Engineers, U. S. A.

Hon. G. W. McCrARY,
Secretary of War, Washington, D. C.

(Through Brig. Gen. H. G. Wright, Chief of Engineers.)

NEW YORK, *September 23, 1879.*

Hon. G. W. McCrARY,
Secretary of War, Washington, D. C.

(Through Brig. Gen. H. G. Wright, Chief of Engineers.)

SIR: I have the honor to present herein a report of the progress made in the improvement of the South Pass of the Mississippi River under the auspices of Mr. James B. Eads, by virtue of a contract made with him by the United States in the acts of Congress approved March 3, 1875, and amended by the acts of June 19, 1878, and March 3, 1879.

This report is annual for the year ending June 30, 1879, and is besides the twelfth in order of inspector's reports.

Inasmuch as I have heretofore presented a report, the eleventh, bringing all data up to about April 1, 1879, it will be convenient to the reader, and subservient to clearness, to quote from that report such portions as may naturally be used in describing parts of the work of the year, without entailing much prolixity, and to condense certain other portions of

the eleventh report, following in a measure the order there indicated for work done from July 1, 1878, to April 1, 1879.

The channel from South Pass Light-house to deep water in the Gulf of Mexico is shown in Nos. 1 and 2 of the accompanying charts, as it appeared according to surveys made from June 11 to June 14, inclusive.

At the head of South Pass the soundings were made July 10, in Southwest Pass July 17, and in Northeast Pass July 22.

Progress in construction from July 1 to August 6, 1878.

From July 1 to August 6 the work of construction accomplished was as follows:

ON THE EAST JETTY.

From 170 to 576 feet from East Point Station, a length of 406 feet, the stone forming the coping of the jetty was closely and smoothly packed, the mass having a crowning cross-section, with a width at base of about 14 feet. The middle line is about 2 feet above average flood-tide.

From 2,520 to 3,225 feet from East Point, 705 feet, a layer of loose willows about 23 feet wide, and generally from 2 to 4 feet thick, was placed quite level, and mostly rather over 2 feet above average flood-tide. Over that portion of this layer, between 2,945 and 3,130 feet from East Point, stone was piled 1 foot in depth, with a width of 15 feet. The stone, as in all cases, compressed the loose willows, as well as those in the upper mattresses, until the stone itself had an elevation above average flood-tide of from 2 to 2½ feet only.

ON THE WEST JETTY.

From 6,700 to 6,900 feet from pile No. 1 (at the junction of the west jetty with the offset called Kipp's Dam), 300 to 400 cubic yards of stone have been roughly piled.

Wing-dam C, projecting from the west jetty, has six mattresses added in the third, fourth, fifth, and sixth tiers next the jetty; 15 cords of loose willows were also superposed on the sixth tier, and about 225 cubic yards of stone were used in the repairs, the upper mattress being ballasted with stone in about the usual proportions. It rises to about 2½ feet above average flood-tide, considerable having sunken through the mattress-frame.

Wing-dam C, projecting from the east jetty, has five mattresses added near the jetty, and above them stone was placed with a depth of about ½ foot. In this case, and in many other localities throughout the jetties, the stone has sunken down through the mattress-frames, very greatly compressing the confined willows, and pressing loose willows, wherever present, into the bodies of the mattresses.

By August 6, the yellow fever had become very deadly at Port Eads, and work was suddenly and almost completely suspended until cold weather should appear.

I lost my capable second assistant, Mr. Parmley, who died of the pestilence August 9. Only the acclimated were retained at Port Eads, and the United States party was so greatly reduced that only the indispensable work of caring for the sick and disposing of the dead could be attended to regularly. A union in one party of all at Port Eads qualified to aid in a survey enabled me to obtain charts of the shoalest portion of the bar occasionally. These surveys are all the data we have giving channel depths over the bar in the summer and much of the fall of 1878.

Depths available for navigation, summer and fall of 1878.

The surveys show the following-named navigable depths over the bar and beyond the end of the jetties: July 2, 22.5 feet; September 6, 22 feet; September 25, 23 feet; October 11, 24 feet; November 2, 23 feet; November 13, 23 feet; December 6, 23 feet; December 24, 23 feet. Over the bar at the head of South Pass the ascertained depths were as follows: September 4, 21 feet; September 16, 21.8 feet; October 7, 22 feet; November 1, 22 feet; November 11, 22 feet; and December 5, 22 feet.

PRELIMINARY WORK, FALL OF 1878:

About forty men were at work during most of the summer and fall. The work performed was generally in the nature of repairs, the care of

the sick, and the stores of material accumulated, and the construction of some minor buildings. However, about 1,000 cubic yards of stone were placed on the jetties as ballast in four localities from September 16 to November 8.

RESUMPTION OF IMPORTANT OPERATIONS.

Mr. Eads's assistants reached South Pass November 24, and preparations for the active resumption of work were at once made.

In December, the main work performed was the construction of a wharf with a projecting pier ending in a T-head, and of a storehouse on the wharf. These structures are described in the eleventh report. They were built to afford storage for the gravel, sand, cement, stone, &c., the latter broken in fine pieces and in larger masses, all to be used in constructing the large blocks of cement-stone, or artificial stone, which now form the superstructure of the lower ends of both jetties, above and below the plane of average flood-tide and near to it, and also to serve as standing room for the laborers and machinery used in the construction of the blocks.

In December, also, the preparation of the foundation for the cement blocks was commenced. The area to be covered by the blocks was first cleared of the large stone, which is placed along the edges of the jetty. Small broken stones or else gravel-stones were then worked down into the interstices of the mattresses at first, and later, when the level of the upper surface of the jetties needed elevating, large stones, with the diameter of a foot perhaps, were used in raising it preliminarily, and small broken stones and sometimes gravel were used in filling the pores of the mass of added stone.

This recital brings the record of work at Port Eads, and of the condition of the channel, up to the beginning of 1879.

WORK ACCOMPLISHED IN CONSTRUCTIONS FROM JANUARY 1 TO JULY 1, 1879.

Since January 1, most of the progress made in adding to the jetties at the mouth of the South Pass has been either in preparation for the manufacture and placing of the cement blocks, or in their actual construction in place. The exceptions are as follows: Embracing all work of construction not directly connected with either the making or repairing of the cement superstructure, or its protection by cribs, aprons, &c.

Early in January, 225 cubic yards of stone were piled on the west jetty at Stations 45, 97, and 100.

Certain sidings for an elevated railroad track have been partly made, branching from the two jetties near their ends; but the purpose they were intended to serve has been abandoned, and, therefore, no description of the work need be given.

On the east jetty, 878 cubic yards of stone of the usual size have been placed between Stations 113 and 116, distributed somewhat irregularly.

At a few points on each jetty above the root of the concrete work, the superposed loose stone has been leveled and arranged more symmetrically than it lay previously.

On the west jetty, a few short gaps, between Stations 75 and 89, have been filled with stone and gravel, 105 cubic yards of the first and 63 yards of the latter having been used.

CONSTRUCTION OF THE CEMENT BLOCKS OF THE SUPERSTRUCTURE.

Preliminary measures for the construction of the cement blocks were taken as soon as work was resumed in the fall.

The wharf, storehouse, &c., pertaining to the east jetty were ready for use before

the first of the new year, and the building of the blocks, mixed by hand, was commenced. The corresponding structures of the west jetty were ready for use, by hand mixers of mortar, about the last of January. February 1 an elevated railroad over the east jetty was commenced. This is in bays of two piles each, about 10 feet apart, supporting a track on girders about 9 feet above average flood-tide. At the end of the jetty the span is reduced to 5 feet. This railroad was extended to the end of the jetty about April 1, and at that date a similar railroad over the west jetty was well advanced towards completion. On each of the tracks a small home-made locomotive has been placed, constructed from various pieces of unused machinery on hand. These are used in transporting small dump-cars, containing the mortar after it has been thoroughly mixed. When the car is over the moulding-box which has been built on the surface of the jetty, the load of mortar is dumped about an axis into this box. The mortar is made sometimes with the following named proportions of ingredients: Sand, 3 parts; gravel, 3; stone, 8½; cement, 2. Considerable difficulty has been experienced in obtaining gravel in sufficient amounts. When none is available, the following proportions are used: Sand, 7 parts; stone, 16; cement, 3; the stone is broken into small pieces equivalent in size, perhaps, to a block 2 inches on each edge. These ingredients are wheeled up an inclined plane and dumped into the hopper of the mixer, which is an iron box having the capacity to hold about 7 cubic yards, suspended above the platform by a horizontal axis passing through a diagonal diameter of the hopper. This axis is hollow, and water, held by a reservoir above the box, is admitted through the hollow journals into the box, as fast as it is needed to give proper consistency to the mortar as its elements are being incorporated by the revolution of the hopper, which is effected by steam-power through a boiler and engine on the platform below. The car being backed under the hopper as soon as the mixture is perfect, generally in about five minutes after the first revolution, the door of the box is opened, and the mortar falls into the trough of the dump-car.

The blocks at the beginning measured 16 feet along the axis of the jetty, 8 feet in width and 3 feet in height. As the blocks settle somewhat at first, the earlier ones have been built up, until on the east jetty they have an average elevation above average flood-tide of 2.75 feet, and on the west jetty they are 2.25 ft above the same plane.

On the east jetty, July 1, 1879, the blocks began at Station 93.96, or 9,396 feet below East Point, and extended to Station 116.33, 11,633 feet below—a length of 2,237 feet, comprising 125 blocks.

On the west jetty, at the same date, the blocks were in place from Station 88.97 to Station 116.59, or 2,752 feet by actual measurement. This length was made up by 154 blocks.

Only the sides and tops of the boxes are taken off after the blocks have become sufficiently hardened, which requires about a week; most of the blocks then resist quite heavy blows with a hammer, without damage. The action of the waves on the sea-sides at first roughened the blocks, but since then the sides have been protected by an apron of stone piled against them and inclining downward to the water in a plane surface. The solidity of the blocks is increased by tamping the mortar as it is dumped into the mould, and a few large stones are inserted into the mass. The top of the block is, in the end, overlaid with fine mortar, composed of equal parts of mortar and sand.

The dimensions of the blocks of cement-stone in place July 1 are as follows:

East jetty.				West jetty.			
Station.		Width.	Thickness.	Station.		Width.	Thickness.
From—	To—			From—	To—		
93 + 96	98 + 16	4.5	3.5	88 + 97	91 + 27	4	3.5
	101 + 8	5	3.5		95 + 53	4.5	3.5
	101 + 97	6	3.2 + 7		101 + 16	5	3.5
	103 + 38	8	3.5 + 10		101 + 80	6	4 + 1 ft.
	104 + 58	8	4.3 + 13		106 + 80	8	3
	106 + 85	8	3		110 + 40	9	3
	110 + 57	9	3		111 + 86	10	3
	113 + 15	10	3		113	10	3.5 + 05
	115 + 31	11	3.5		114 + 12	10	3.5
	116 + 33	12	3.8				

For the west jetty, seaward of Station 113.66, for about 275 feet in length, to the end of the work, the surface was raised from 3 feet below the plane of average flood-tide to 3 feet above, by loose willows, which were afterwards covered by 17 blocks of cement stone; 132 cords of willows were used, being placed on a mass of stone, comprising about 950 cubic yards, sunken just previously. The weight of the blocks caused the willows to settle until compressed to about one-half the original bulk, their upper surface being approximately coincident with the plane of average flood-tide.

On the same jetty, above Station 101.24, trestles were used in the construction of the elevated railroad, their uprights resting on two lines of one-inch boards, placed along surfaces leveled previously. These trestles were simply braced, but amply for the strains to be borne temporarily. The foundations of the cement blocks were of macadamized stone and gravel. This work was extended about to Station 90 by the construction of 59 blocks.

On the east jetty the cement work has been extended upstream from the beginning of the old blocks, at Station 100.92, 696 feet, by the construction of 34 new blocks, about 1,860 cubic yards of stone having been used in raising and leveling the foundation. The trestle-work previously employed on the west jetty was used for the support of the elevated railroad employed in the transportation of material. These blocks will perhaps be extended still farther upwards, but probably not as far as Station 75. The six old blocks first laid, beginning at Station 100.86, were raised 1 foot by the addition of fresh concrete, to partly compensate for their depression by settling.

Five cribs, built of palmetto logs, have been sunken, four on the river side of the west jetty, between Stations 115 and 118, and the fifth just beyond, across the end of the west jetty. These are filled with stone, and serve as a protection breakwater to save the end of the jetty from the fury of the waves, which sweep in here on the river side of the jetty with great violence in severe east and southeast storms. These cribs are not built all quite alike, but they are of the same general character. The logs are close together on the sides and floor, and only small stones can work through and escape from the mass. They will be described in a future report, after more have been placed in position. About 430 yards of stone were used in sinking and ballasting these five cribs.

Others of much the same character will probably be built and placed along the end of both jetties, both inside and outside the works.

The last block of the east jetty was gradually undermined and finally broken into two parts, its outer third falling over towards the end of the jetty.

EFFECTS OF THE GALE IN APRIL.

In the latter part of April there came a violent easterly storm, during which, on the 27th, the wind blew at the rate of 27 miles per hour. Before this, preparations had been made to improve the foundation of the last blocks on the west jetty, by working under them a large quantity of gravel. Preliminarily, the stone apron protecting the jetty on the river side had been removed, and the storm found this portion of the works ill-prepared to endure its violence. In consequence, by undermining, &c., 9 cement blocks were more or less displaced or damaged. The last two blocks ending at Station 109.55 tilted over towards the Pass 45°, and were broken each into two parts transversely to their length. The next four blocks in an upstream direction were also undermined, and were canted over through 20°, but remained intact. Three others

had holes battered into them, each about 7 feet long and 3 feet deep, throughout their thickness.

The damage to the jetties was soon thoroughly repaired, as follows: The two broken blocks at the end of the cement work were blasted and picked into small pieces and distributed as ballast. Their places were then supplied by two new blocks, after the foundation had been made secure. The four blocks which had merely been displaced angularly were forced into their normal beds by jacks suspended from above, and the foundations beneath them were remade substantially with macadamized stone and gravel. The three blocks which had been partially eaten away in holes were repaired with fresh concrete, the bond between the old work and the new being apparently good. About 1 foot of concrete was superposed on each of these three blocks to raise their level to that of the adjacent work.

Considerable stone was driven into the sea and lost from the jetty during the same storm. Some of it may be recovered, as much has been that has heretofore been temporarily lost from the jetties. The steep slopes are made very gentle in such cases, and the base of the jetties at and near the bottom is widened, rather than that anything is actually abstracted from the jetties.

SINKING OF THE JETTIES, ESPECIALLY OF THE CEMENT BLOCKS.

In the eleventh report, I remarked as follows :

The bench-marks which have been used in determining the level of the upper surface of the jetties have mostly disappeared; mattresses have sunken or have become covered with mud or rock, or have disappeared, until it is impracticable to ascertain to what extent the jetties sunk from July 1, 1878, to January 1, 1879. As soon as the fact could be ascertained, preparations were made for commencing a new set of comparisons.

Sufficient time has not elapsed to make results at present attainable of much value, but hereafter the blocks of cement-mortar will be frequently observed, and for my next report I hope to be able to give data, showing the amount of subsidence of the entire length of the jetties for the months from February to July, 1879. This will be practicable if the bench-marks remain in place.

Every effort has been made to obtain data which should enable me to ascertain the rate of depression throughout the entire jetties. At extreme low-tides heavy uprights were firmly attached to such mattress-strips in the top tier of mattresses as could be reached higher upstream than the origin of the cement blocks. But these have broken off, or have canted over, or have sunken, until no reliance can be placed on their surfaces as bench-marks, and I have been reluctantly compelled to abandon for the present the endeavor to trace the vertical-motion of the upper surface of the mattresses. They lie so far under mud and water and rock that the identification of bench-marks on them seems impracticable, and of course bench-marks on the overlying stone would be worthless. But since the earliest cement-blocks were laid down sets of levels have frequently been taken on them and connected with bench-marks on shore.

To illustrate the results, I remark that in April the mean result for 90 blocks on the east jetty was a depression of less than one-third of a tenth of a foot, and for 43 blocks on the west jetty just three times as much, the blocks on the west jetty being much the newer ones. Thus far and at present the blocks seem to be sinking at an average rate of from $\frac{1}{2}$ foot to 1 foot yearly; but it is during severe storms that most of the depression occurs, and as this depression is somewhat proportional to the violence of the wave action, the sinking resulting cannot be uni-

Tables showing elevation of concrete blocks, at various dates, &c.—Continued.

EAST JETTY—Continued.

No. of block.	Date when laid.	Elevation Feb. 4.	Elevation Feb. 11.	Elevation Mar. 5.	Elevation Mar. 31.	Elevation Apr. 28.	Elevation July 1.	Total subsidence to July 1.	Remarks.	
		<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>		
60.....	Feb. 26	2.76	2.67	2.58	2.76	2.67	2.43	0.33	Station 111.	
61.....	Mar. 1	2.76	2.63	2.66	2.63	2.66	2.46	0.30		
62.....	3	2.66	2.60	2.56	2.60	2.56	2.43	0.23		
63.....	3	2.77	2.63	2.53	2.63	2.53	2.46	0.31		
64.....	4	2.79	2.66	2.65	2.66	2.65	2.51	0.28		
65.....	4	2.75	2.56	2.54	2.56	2.54	2.46	0.20		
66.....	4	2.70	2.53	2.54	2.53	2.54	2.47	0.23		
67.....	5	2.67	2.43	2.46	2.43	2.46	2.33	0.34		
68.....	5	2.43	2.39	2.28	2.43	2.39	2.28	0.15		Station 112.
69.....	5	2.55	2.50	2.40	2.55	2.50	2.40	0.15		
70.....	7	2.57	2.54	2.40	2.57	2.54	2.40	0.17		
71.....	7	2.61	2.53	2.45	2.61	2.53	2.45	0.16		
72.....	7	2.61	2.57	2.46	2.61	2.57	2.46	0.15		
73.....	7	3.06	3.04	2.95	3.06	3.04	2.95	0.11	Station 113.	
74.....	8	3.12	3.07	3.03	3.12	3.07	3.03	0.09		
75.....	8	3.15	3.19	3.08	3.15	3.19	3.08	0.07		
76.....	8	3.19	3.18	3.13	3.19	3.18	3.13	0.06		
77.....	10	3.35	3.38	3.35	3.35	3.38	3.35	0.00		
78.....	11	3.43	3.37	3.42	3.43	3.37	3.42	0.01		
79.....	11	3.53	3.52	3.49	3.53	3.52	3.49	0.04		Station 114.
80.....	11	3.51	3.49	3.47	3.51	3.49	3.47	0.04		
81.....	12	3.39	3.39	3.37	3.39	3.39	3.37	0.02		
82.....	12	3.38	3.38	3.33	3.38	3.38	3.33	0.05		
83.....	12	3.36	3.34	3.31	3.36	3.34	3.31	0.05		
84.....	13	3.38	3.34	3.30	3.38	3.34	3.30	0.08		
85.....	13	3.52	3.51	3.48	3.52	3.51	3.48	0.04	Station 115.	
86.....	14	3.98	3.91	3.92	3.98	3.91	3.92	0.06		
87.....	14	4.13	4.07	4.05	4.13	4.07	4.05	0.08		
88.....	15	4.18	4.08	4.07	4.18	4.08	4.07	0.11		
89.....	15	4.17	4.09	3.92	4.17	4.09	3.92	0.25		
90.....	18	4.32	4.14	3.97	4.32	4.14	3.97	0.35		
91.....	19	4.30	3.48	3.21	4.30	3.48	3.21	1.09		Station 116: This block was undermined by waves and broken in two.

WEST JETTY.

No. of block.	Date when laid.	Elevation Feb. 4.	Elevation Feb. 11.	Elevation Mar. 5.	Elevation Mar. 31.	Elevation Apr. 28.	Elevation July 1.	Total subsidence to July 1.	Remarks.	
		<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>		
1.....	Jan. 31	2.23	2.09	2.03	1.91	0.32	Station 101 + 25..	
2.....	30	2.11	2.00	1.95	1.86	.....	.....	0.25
3.....	30	1.74	1.66	1.56	1.54	.....	.....	0.20
4.....	29	1.96	1.87	1.83	1.73	.....	.....	0.23
5.....	29	2.23	2.12	2.07	2.00	0.23		Station 102..
6.....	28	2.41	2.37	2.31	2.18	.....	.....	0.23
7.....	21	2.19	2.06	2.03	2.10	.....	.....	0.09
8.....	23	2.06	1.97	1.93	1.95	1.92	1.83	0.23		
9.....	23	2.01	1.92	1.88	1.83	1.82	1.74	0.27		
10.....	23	2.05	1.98	1.91	1.87	1.80	1.78	0.27		
11.....	24	2.18	2.08	2.01	1.96	1.96	1.90	0.28		
12.....	25	2.37	2.28	2.18	2.11	2.13	2.08	0.29	Station 103.	
13.....	27	2.64	2.54	2.53	2.43	2.42	2.36	0.28		
14.....	27	2.68	2.57	2.48	2.44	2.44	2.38	0.30		
15.....	31	2.85	2.71	2.65	2.60	2.60	2.56	0.29		
16.....	Feb. 1	.....	.....	.....	2.65	2.65	2.62	0.03
17.....	Mar. 21	2.85	2.86	2.85	0.00		Station 104.
18.....	21	.....	.....	.....	2.84	2.84	2.86	.....	
19.....	21	.....	.....	.....	2.87	2.83	2.80	0.07
20.....	21	.....	.....	.....	2.89	2.86	2.81	0.08
21.....	21	.....	.....	.....	2.92	2.88	2.84	0.08
22.....	24	.....	.....	.....	2.86	2.82	2.84	0.02
23.....	24	2.80	2.74	2.66	0.14	Station 105.	
24.....	24	.....	.....	.....	2.79	2.71	2.62	0.17
25.....	24	.....	.....	.....	2.77	2.67	2.57	0.20
26.....	24	.....	.....	.....	2.65	2.57	2.46	0.19
27.....	25	.....	.....	.....	2.69	2.62	2.52	0.17
28.....	25	.....	.....	.....	2.81	2.74	2.63	0.18
29.....	25	.....	.....	.....	2.63	2.57	2.47	0.18
30.....	25	.....	.....	.....	2.97	2.87	2.75	0.18

Tables showing elevation of concrete blocks, at various dates, &c.—Continued.

WEST JETTY—Continued.

No. of block.	Date when laid.	Elevation Feb. 4.	Elevation Feb. 11.	Elevation Mar. 5.	Elevation Apr. 18.	Elevation Apr. 18.	Elevation July 1.	Total subsidence to July 1.	Remarks.
		Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	
31	Mar. 26				3.12	3.06	2.94	0.18	Station 106.
32	26				3.12	3.04	2.91	0.21	
33	26				3.14	3.06	2.91	0.23	
34	26				3.24	3.16	3.01	0.23	
35	26				3.22	3.15	3.00	0.22	
36	27				3.23	3.14	3.00	0.23	
37	27				3.31	3.20	3.10	0.21	Station 107.
38	27				3.30	3.18	3.12	0.18	
39	27				3.21	3.11	3.07	0.14	
40	27				3.11	3.03	2.97	0.14	
41	28				3.04	2.96	2.91	0.13	
42	28				3.07	2.95	2.88	0.19	
43	28				3.12	3.00	2.89	0.23	Station 108.
44	29				3.18	3.05	2.98	0.20	
45	29				3.23	3.11	3.05	0.18	
46	29				3.26	3.06	3.00	0.26	
47	29				3.21	2.93	2.85	0.36	
48	31				3.24	2.91	2.75	0.49	Station 109.
49	31				3.31	2.86	2.76	0.55	
					Elevation Apr. 18.				
50	31				3.10	2.77	2.67	0.43	
51	31				3.20	2.94	2.85	0.35	
52	31				3.25	2.96	2.88	0.37	
53	Apr. 1				3.37	3.08	3.01	0.36	
54	1				3.32	3.05	2.97	0.35	
55	1				3.26	2.93	2.92	0.34	
56	1				3.15	3.04	2.75	0.40	Station 110.
57	2				3.25	3.07	2.93	0.32	
58	2				3.23	3.06	2.94	0.29	
59	2				3.15	3.00	2.89	0.26	
60	2				3.05	2.99	2.87	0.18	
61	3				3.12	2.98	2.86	0.26	Station 111.
62	3				3.16	3.03	2.93	0.23	
63	3				3.31	3.09	3.00	0.31	
64	5				3.40	3.27	3.15	0.25	
65	5				3.46	3.35	3.26	0.20	
66	7				3.61	3.40	3.37	0.24	
67	8				3.22	3.03	3.44		Station 112. Blocks 67-72, inclusive, were tilted over by gale April 23, and when restored to horizontal position were found to be above original elevation.
68	8				3.22	3.08	3.51		
69	8				3.27	3.02	3.51		
70	8				3.10	3.98	3.42		
71	8				3.04	2.89	3.43		
72	8					2.92	3.38		
73	10						3.37		Station 113.
74	11						3.37		
75	11						3.44		
76	11						3.46		
77	17						3.54		
78	18						3.61		
79	June 30						3.50		
80	14						2.96		Station 114.
81	16						2.97		
82	16						3.05		
83	16						3.00		
84	17						2.85		
85	17						2.92		
86	17						2.78		Station 115.
87	18						2.84		
88	18						2.98		
89	18						2.99		
90	19						2.92		
91	19						2.95		
92	19						2.93		Station 116.
93	30						3.53		
94	30						3.50		
95	July 1						3.47		

As has been heretofore stated, we cannot ascertain how much of the settling of the upper surface of the jetties is due to normal condensa-

tion of the mass of the work, and how much to other causes, including the ravages of worms near the ends, which must ultimately be succeeded by condensation as the wood in the lower tiers becomes so much eaten as to be incapable of supporting the weight of the superposed mass. Much of the first settling is undoubtedly caused by solidification of the jetties. The most marked effects of this are shown in the first week.

This condensation, together with the solidifying influence of the gravel which has been worked into the jetties and the presence of the solid wall of cement blocks, preventing the escape of the surface water, must have had an appreciable effect in increasing the flow of the pass through the channel of the bar at the mouth of the pass. Another important effect is the prevention of the silting up of the channel from the presence of sand formerly driven over the east jetty during strong easterly winds from the sea side of the work by the violent storm waves raised. These influences, combined with the presence of an unusually favorable season, during which the river has been nearly at its low-water stage, and without coarse sand sediment in suspension, through the months of May, June, and July, which have hitherto been high-water months, have enabled Mr. Eads to obtain so successfully his channels with 25, 26, and 30 feet depth, successively, as designated in the several acts of Congress authorizing the improvement.

During the storms of the late summer and fall of 1878, some of the sand behind the east jetty was moved into a long spit, which had an elevation above average flood-tide of $1\frac{1}{4}$ feet. This spit, which appears to have a prolongation west of the west jetty, is shown on sheet No. 2. The prevention of most of the leakage through the jetty, but especially of the overflow, which must cease wherever the blocks are placed, must have an important influence on the growth of land to the east and west of the jetties.

The wing-dams or spurs of the jetties.—Most of these structures, 31 in number, are more or less dilapidated, but the spaces between them have so shoaled that the wing-dams have been greatly protected and preserved, and this shoaling has to a great extent controlled the channel, so that repairs to the wing-dams have been rarely necessary. The last wing-dam on each side, A and a, however, have sunken below the plane of average flood-tide, so that at extreme low-tide the piles of wing-dam A are not visible. The mean depth of water at average flood-tide over the last wing-dam, east jetty A, was $8\frac{1}{2}$ feet April 1. The depth over the opposite wing-dam a averaged 8 feet on the same date.

With the exception of the last two wing-dams on each side, there exists no necessity for frequent and close observation of their condition, under present circumstances, and no detailed statement of the condition of the wing-dams is given in this report.

DISCHARGE OBSERVATIONS.

Concentration of attention on other details has prevented frequent observations to ascertain the volume of discharge of the South Pass. But there is great need of absolutely simultaneous observations of the volume of discharge of each of the three passes. If the passes are visited in succession, each one twice, in whatever order the several sets of observations are made, I am convinced that they are of very little value, the flow of the pass changes so rapidly and so considerably in a few minutes, with the rise or fall of the tide, and with a change in direction or intensity of the wind.

The appropriations for the examination and survey of South Pass have never been sufficient heretofore to allow the employment of a force of men and boats adequate to the making of simultaneous velocity observations in each of the three passes, or for the needed frequency of the collection of sediment samples from South Pass. Now that a more commensurate appropriation has been made by Congress, a second steam launch has been bought, and it is proposed in the fall to enlarge my party sufficiently to allow its division into three sections, each under a competent head.

The survey of the entire pass is needed once each year, and, if practicable, this work will be done. I give here the results of one set of observations for the discharge of South Pass at Falconer's, near the head of the pass, made February 22, 1879.

A discharge of 68,363.02 cubic feet per second was shown.

WORK OF THE DREDGE BAYLEY.

This dredgeboat reached Port Eads from New Orleans June 3, after very extensive repairs, which have greatly increased its efficiency. The

discharge pipe is not now conveniently accessible for the purpose of gauging her performance, but the evident impression easily made in removing mud, &c., in a short time, while working to slightly widen and deepen the 26-foot channel in a few places, and to make the 30-foot channel in a few localities where it was lacking, shows a capacity for work greatly beyond her former performance.

At the same time it is evident that if there were a decided tendency to shoaling on the bar, caused by the deposition of coarse sand, which is the only sediment retarded and deposited here by the river in times of the flood stage, the work which could be accomplished by more than one such dredge as the Bayley would be insufficient to keep open a respectable channel, comparing the probable result with the present deep outlet.

USE OF A SCOURING DEVICE.

While the Bayley was undergoing repairs the 25-foot channel had been nearly obtained, and it became important to slightly widen and deepen the channel in one place to secure the important result. In this emergency a scow was fitted up with a set of long levers, of about 8 inch round stuff, which moved about a journal as a fulcrum, supported just abaft the stern of the scow. At the after end of these levers, far astern of the scow, there was attached an apron on a frame at an angle of about 60 degrees, with the levers so arranged that when the levers were rotated about the journal the apron's frame should touch the bottom, leaving an interval between the bottom of the pass, and the lower end of the apron, for the escape of the water, which, diverted by the apron, is forced down its inclined plane through this interval and over the bottom with great velocity, thus scouring away the mud and sand.

The device was successful, and the desired width and depth were soon obtained.

PURCHASE AND SALE OF BOATS.

During the year the new towboat Ella Andrews has been purchased and also thirteen-sixteenths of the old tugboat Brearly, while the Grafton and the Piasa, larger boats, have been sold.

THE CHANNEL THROUGH THE BAR AT THE MOUTH OF SOUTH PASS.

By the 1st of July, 1878, Mr. Eads had obtained a channel 22 feet deep and 200 feet wide. Since then, up to July 8, 1879, he has obtained other channels as follows: At the mouth of South Pass, March 27, 1879, a channel 24 feet deep and over 200 feet wide; April 7, 1879, a channel 25 feet deep and over 200 feet wide; June 18, 1879, one 26 feet deep and over 200 feet wide; and July 8, 1879, a channel 30 feet deep without regard to width.

July 10 there was a navigable channel at the head of South Pass 26 feet deep. On the 14th of June, the date of Chart No. 2, there was a navigable channel through the bar at the mouth of South Pass 28 feet deep.

The following table, giving the minimum depths* at various dates of the channel from East Point downwards, in separate reaches of 2,000 feet each, will enable the mind to appreciate the progressive improve

ment of the channel, a progress not always constant and uninterrupted, but still generally persistent :

Date.	Distances in feet from East Point.					
	0 to 2,000.	2,000 to 4,000.	4,000 to 6,000.	6,000 to 8,000.	8,000 to 10,000.	10,000 to 12,000.
June —, 1875	22.5	18.7	16.7	10.2	9.7	9.2
May —, 1876	23.3	20.3	22.0	21.0	17.1	15.0
Aug. —, 1876	23.5	19.6	21.0	23.5	23.0	19.8
Nov. —, 1876	22.0	20.3	21.1	21.2	21.1	20.3
Mar. 16, 1877	24.1	21.1	23.2	22.0	21.2	20.5
Apr. 2, 1877						21.3
Apr. 22, 1877						20.5
May 10, 1877				22.1	21.4	19.5
May 24, 1877						17.8
June 28, 1877						18.0
July 3, 1877	24.9	24.0			23.5	
July 7, 1877				23.8		
July 8, 1877			26.0			
July 28, 1877						20.3
Aug. 30, 1877						20.8
Sept. 23, 1877						20.7
Oct. 25, 1877		24.4				
Oct. 31, 1877						21.0
Nov. 3, 1877	26.3		28.5			
Nov. 13, 1877				24.2		
Dec. 1, 1877						21.3
Dec. 7, 1877					23.0	
Dec. 14, 1877						23.7
Jan. 1, 1878						23.0
Feb. 2, 1878						22.8
Mar. 4, 1878						23.2
Mar. 13, 1878						20.5
Mar. 24, 1878	26.0	25.9				
Mar. 25, 1878			35.5			
Mar. 26, 1878				25.4		
Mar. 27, 1878					24.3	
Apr. 3, 1878						23.0
May 9, 1878						23.2
May 23, 1878						22.3
June 3, 1878						22.2
June 19, 1878						22.0
July 2, 1878						21.9
Dec. 2, 1878	28.4	26.4	35.7			
Dec. 3, 1878				27.1	25.3	
Dec. 6, 1878						23.0
Dec. 28, 1878						23.0
Jan. 20, 1879						23.9
Feb. 13, 1879						22.2
Mar. 14, 1879						24.8
Mar. 19, 1879	28.6	27.5	43.4			
Mar. 24, 1879				27.0	27.0	
Mar. 27, 1879						27.0
Apr. 8, 1879						27.0
May 13, 1879						
June 11, 1879	27.5					
June 12, 1879			47.7	29.2	29.2	
June 14, 1879						28.0
June 18, 1879		28.4				
July 8, 1879	30.5	30.7		31.0	30.7	30.5

WORK DURING THE YEAR AT THE HEAD OF PASSES.

On the submerged dam in Southwest Pass.—A reference to the sixth report of the inspector, April 5, 1877, on the South Pass improvement, Chart No. 5, shows that this dam, called at the time a mattress-sill, consisting merely of one tier of mattresses, mostly 75 feet wide, but at its westerly end 35 feet wide only, and 2 feet thick throughout, extended nearly across Southwest Pass, or from the extreme point of the west T-head to within about 300 feet of the west shore-line. The work remained in this condition, substantially, until December, 1878, when the task of building up this dam was commenced.

The project contemplated the continuance of the construction until 25 or 26 feet of water only should be available as a channel, instead of about 31 or 32 feet originally existing over the site of the mattress-sill. That project has been executed as follows: On the single tier of mattresses formerly laid down (elsewhere than from 360 to 625 feet from the west shore, where a second layer has been superposed on the first), second, third, and fourth tiers have been constructed.

The condition of the dam is now as follows: The first tier is 2,843 feet in length; on this is a layer of mud about 1½ feet thick. The second tier commences 365 feet from the west shore and contains 38 mattresses, extending to a point 1,855 feet from the

west shore, or 1,490 feet from its beginning. The third tier commences 475 feet from the west shore, contains 34 mattresses, and ends at a point 1,310 feet from its initial point. A fourth tier, beginning 475 feet from the west shore, contains 9 mattresses in a length of 315 feet, and ends 790 feet from the west shore.

From the westerly end of the third and fourth tiers to the west shore the wall has been extended to the shore-line by adding loose willows, ballasted with stone, so as to present an elevation of 2.25 feet above average flood-tide. This was partly built in December, 1878, and finished in January, 1879. Loose willows, amounting to 740 cords, and 150 cubic yards of stone have been used in this extension. The new mattresses of this submerged dam are 63 feet in length and sometimes 33 and sometimes 38 feet in width, about half of each size. They are laid with the longitudinal axis parallel to the current in such a manner that each tier overlaps on the up-stream side, by about $\frac{1}{3}$ its length, the one on which it rests. Most of them are thinner at each short edge than elsewhere, being about 1 foot thick on the down-stream edge and 3 feet thick at a distance of $\frac{1}{3}$ the whole length, above whence they again diminish to a thickness of 1.3 or 2 feet at the up-stream short edge. Some of them are uniformly 2 feet thick for $\frac{2}{3}$ of their length, diminishing to a thickness of 1 foot at one edge. It is assumed that the weight of the up-stream projection will cause the overlap to sag down, giving a slope on both edges in any case. Averaging, about 12 cubic yards of stone were used in ballasting each of the mattresses. In the construction 2,750 cords of willows and 1,040 cubic yards of stone have been used.

DAM NO. 5.

This dam, extending across the old east channel between the island and the east shore, has been improved by the addition of 743 cords of loose willows and 353 cubic yards of stone, which has left the surface about $1\frac{1}{2}$ feet above average flood-tide, and the body of the dam is in good condition.

DAM NO. 3.

This extends from the west T-head to the shore near the light-house. A tier of loose willows ballasted with stone has been placed on the mattresses. A plank walk has also been added to its surface leading to the east shore of the light-house.

EAST T-HEAD.

The wall is mostly in shoal water, and previous to this year the only work remaining in place was one tier of mattresses for the upper half of its old length. This tier is double, one range on each side of the guide-piles. The late work previous to April 1, 1879, began at a point 500 feet below the junction of the T-head with dam No. 2, and extended to this junction. Here 10 mattresses form a second tier, and over them loose willows are laid and ballasted with stone until the work has an elevation of about 2 feet above average flood-tide.

Below this, extending to the island, loose willows and stone alone have been used to give the T-head about the same elevation.

THE NEW EXTENSION OF THE EAST T-HEAD.

Above the junction of dam No. 2 with the east T-head the old apron-mattresses are so covered and useless that they have been ignored in constructing the new work, and they may be disregarded in this description.

The new work is as follows: The lower arm of the T-head below dam No. 2 is continued above that point, nearly in the same line, 785 feet; thence it is produced up-stream 1,215 feet in an arc of a circle having a radius of 2,255 feet, the convexity towards the channel.

The foundation tier consists of 26 mattresses, some 30 and some 38 feet wide, laid with their longer axis nearly to the right angle of the axis of the extension, thus serving as an apron to mitigate scour.

For a distance of 470 feet from dam No. 2, the structure is above average flood-tide. For the first 270 feet of this length, including the foundation tier, there are 6 tiers of mattresses and a layer of loose willows; for 200 feet farther there are 4 tiers of mattresses and a layer of loose willows. This whole length of 470 feet is lined on its channel edge by upright mattresses, boarded on the inner side, whose lower edges rest on the foundation mattresses. For 31 feet farther up-stream, or to 785 feet from dam No. 2, there are three tiers of horizontal mattresses mostly, although for short distances there are successively two and then one tier. On the uppermost of these, as a higher foundation, rest tilted mattresses, boarded on one side, their upper edges some 3

feet above average flood-tide and their lower edges resting on the middle line of mattress surfaces, about 7 feet below the same plane, averaging. From this point to the end of the T-head, 1,215 feet higher up, or 2,000 feet above dam No. 2, there is of horizontal mattresses only the foundation tier, 38 feet wide; and the longer axis of this part of the extension is the foundation on which rest tilted mattresses, nearly upright, from 10 to 24 inches in thickness. The upper edges of all these tilted mattresses rise about 3 feet above average flood-tide.

THE UPPER DAM, OR NEW DAM.

From the up-stream terminus of the T-head extension starts a new dam nearly at right angles to the T-head. It extends towards Northeast Pass. Its foundation is 1,880 feet long. As first constructed, the foundation consisted of two wide or broad ends with an intermediate narrower portion. The wider ends were built by placing the mattresses on the bottom so that their ends should abut and their longer axes lie across the direction of the axis of the dam. For 66 feet in length there were two mattresses, giving a width of 126 feet. For 99 feet farther there were three mattresses, spreading out the base to a width of 189 feet. Thence, for 455 feet, the width was about 125 feet in two mattresses, and then came a long stretch of 1,020 feet having a single mattress 43 feet across dam. For the easterly 340 feet the line of mattresses was double, giving a total breadth of 116 feet to this portion of the foundation. These mattresses were nearly of the usual width. On the westerly end of this foundation a superstructure was laid as follows: A second tier, 2 feet thick, 43 feet wide, and 441 feet long, of seven mattresses, began 25 feet west of the line of the T-head, and 115 feet east of the starting point of the foundation. Third and fourth tiers, of the same number of mattresses, overlie all but 15 feet of the length of the second tier, this terrace being at the westerly end. The third tier is 38 feet, and the fourth 33 feet wide, thus terracing the sides as well as the ends of the structure.

Seven tilted board-bottom mattresses were then placed on edge on the fourth tier, as a foundation, with their ends abutting, their upper edges being about 3 feet above average flood-tide.

At the eastern end of the dam, over the length of 340 feet, forming what may be called the easterly abutment of the dam, five tiers of horizontal mattresses extend over 245 feet, leaving at the extreme end an apron of the foundation about 90 feet long. The lowest of these four tiers is 35 feet wide and the highest 23 feet wide. The fifth tier's upper surface is within 1.5 feet of average flood-tide, and this is the top of the dam here.

Between these two abutments the dam consisted at first of 16 tilted mattresses, 2 feet thick, with board bottoms, or, rather, with a board side, their widths so adjusted to the depth of the water that the upper edge shall be from 2 to 3 feet above average flood-tide. They are from 16 to 19½ feet wide. Their lower edges rest on the middle line of the foundation or apron tier.

After this dam had been nearly finished, it was found that the foundation was being rapidly undermined in several places, and it became necessary to check this action at once, lest the whole structure should be endangered.

Mattresses of special sizes and shapes were constructed to fit holes in and under the foundation tier, as revealed by soundings. It is unnecessary to describe these. In all, 15 specially constructed mattresses were sunken, and afterwards a second foundation tier was sunken on them, covering a part of the width of the original foundation and 1,020 feet of its length between the abutments, as I have designated them.

A second row of tilted mattresses was then placed edgewise on this new foundation, on the up-stream side of the original dam, the whole making in effect a second dam above and in contact with the first, comprising 30 mattresses in the foundation, and in the subfoundation to fill holes, and 10 boarded tilted mattresses on the flat foundation. The undermining ceased, and the condition of the dam and of the whole east T-head was very good July 1, 1879.

A large area, included between the new dam, Dam No. 2, the east T-head extension, and east dike, is fast filling up with accumulations of sediment, during the present low stage of the river. What will be the effect of a great and sudden rise in the river we have little data to prophesy on.

About 5,373 cords of willows and 862 cubic yards of stone were used in the two new structures at the head of the pass during the year.

All other constructions not referred to in this report are in a condition quite good enough for the purposes they serve.

DEPTHS OF THE HEAD OF PASSES.

In the eleventh report, depths in Southwest Pass and Northeast Pass, ascertained in March, 1879, were compared with depths found in March, 1878. I now compare soundings made, some in March, 1878, and some in March, 1879, with those taken July, 1879. A line over Southwest Pass mattress-sill gives mean depths 23.9 and 24.8 feet, respectively, indicating a deepening or depression of the mattresses of 0.9 feet in four months. Two hundred feet below this sill the mean depth was 30.76 feet in March, 1878, and 30.36 feet in July, 1879, a shoaling of 0.4 feet in 16 months.

In the Northeast Pass one line for comparison is 550 feet above its sill, and a second 600 feet below it. In the first case the deepening is from a mean depth of 25.45 feet in March, 1878, to 25.84 feet July, 1879, or a scour of 0.39 feet in 16 months. In the second case a shoaling from 29.1 feet in March, 1878, to 26.8 in July, 1879, or of 2.3 feet in 16 months, appears.

In order to determine the locations and amount of tendencies to changes of depth in the channel at the head of South Pass since April, 1878, two imaginary lines were drawn on this chart and that of July 10, 1879, so as in all cases to be 200 feet apart across channel. These inclose, in each instance, about the best water for navigation at the respective dates. Within these lines reaches are considered, each 500 feet long, and the soundings being distributed nearly uniformly, a mean of all depths in each reach is ascertained. The results of the comparison are given in the following table:

Distance from Sta. Cluster.	Mean depth of reach—		Increase of depth.
	April 12, 1878.	July 10, 1879.	
0 to 500 feet above.....	23.9	26.6	2.7
500 to 1,000 feet above.....	25.9	26.2	0.3
0 to 500 feet below.....	27.1	31.5	4.4

CERTIFIED STATEMENTS OF DEPTHS.

There will be found herein all the certificates of depths that have been made by me during the year, including those which formed the basis of Mr. Eads's claims for compensation for obtaining the 25, 26, and 30 feet channel. From these there can be ascertained the minimum depths and widths at both the head and mouth of South Pass at various dates, based on careful and accurate surveys.

Statements were forwarded to the New Orleans Times, Picayune, Democrat, and Price-Current. Each statement was certified to as follows:

I certify that the above is a correct statement.

M. R. BROWN,
Captain of Engineers, U. S. A.

Official:

Published by order of the Hon. Secretary of War.

UNITED STATES ENGINEER OFFICE,
Port Eads, La., June 23, 1879.

January 20, 1879, there was a practicable channel at least 23.9 feet deep at average flood-tide and at high-water of the day through the bar at the end of South Pass jetties and elsewhere throughout the pass, except over the bar at the Head of Passes, and a channel of at least 21.4 feet deep at low-water of the day.

January 22, 1879, at Head of Passes the least depth of channel at average flood-tide and at high-water of the day was 22.1 feet, and at low-water 20.6 feet.

February 19, 1879.—Over the bar at the mouth of South Pass, on the 13th of February, 1879, there was a channel at average flood-tide and at high-water of the day having a least depth of 22.2 feet, with a width of 200 feet. At low-water of the day the least depth was 21.2 feet.

March 15, 1879.—Over South Pass bar the depth of water at average flood-tide, March 14, 1879, was 24.8 feet. The least width for this depth was 80 feet.

At high-water of the day the least depth was 25.4 feet, and at low-water 23.8 feet.

At Head of Passes March 3 least depth of channel at average flood-tide was 23 feet, at high-tide 24.5 feet, and at low-tide 23.3 feet.

April 14, 1879.—Statement of the depth and width of the improved channel at the mouth of South Pass April 7, and of the channel at the head of South Pass April 11, 1879:

I certify that a channel existed on the 7th day of April, 1879, at the mouth of South Pass 25 feet deep, and in no place less than 230 feet wide on the bottom, between the deep water of the pass and the deep water of the Gulf of Mexico; also, that on the 11th day of April, 1879, there was at the head of South Pass a channel sufficiently wide for navigation, having a least depth of 24 feet, and that the 23-foot channel at the same place had nowhere less width than 125 feet.

May 13, 1879.—Through the bar at the mouth of South Pass, May 13, 1879, there was at average flood-tide and at high-water of the day a practicable channel, having a least depth of 26 feet. The 25-foot channel was 140 feet wide in its narrowest place.

At the head of South Pass May 3, 1879, the least depth of the channel at average flood-tide was 24.2 feet; the length of channel having a less depth than 25 feet was 200 feet.

At high-water of the day the least depth on the bar at head of South Pass was 25.3 feet, and at low-water 25.1 feet.

June 19, 1879.—At the mouth of South Pass, June 14, 1879, there was at average flood-tide and at high-water of the day a channel having a least depth of 26 feet for a width of 205 feet in its narrowest part. At the same time there was a navigable channel 28 feet deep in its shoalest part. At low-water of the day these depths were diminished 1.2 feet.

At the Head of Passes, June 17, there was, at average flood-tide, a navigable channel having a least depth of 2.44 feet.

July 10, 1879.—At the mouth of South Pass, July 8, there was, at average flood-tide, a navigable channel having a least depth of 30.5 feet from deeper water in South Pass to deeper water in the Gulf of Mexico. At high-tide of the day this depth was 30 feet, and at low-tide 29.7 feet.

At the Head of Passes, July 16, there was, at average flood-tide, a navigable channel having a least depth of 26 feet.

Certificates as bases of payments to Mr. Eads for obtaining the 25, 26, and 30 feet channels, respectively.

PORT EADS, LA., April 10, 1879.

HON. GEORGE W. McCRARY,
Secretary of War:

(Through Lieut. Col. H. G. Wright, Acting Chief of Engineers.)

Statement of the depth, width, and extent of the improved channel at the lower end of South Pass, Mississippi, April 7, 1879.

I certify that on the 7th day of April, 1879, the channel in that portion of South Pass between the South Pass Light-house and the deeper water of the Gulf of Mexico, including a passage through the bar near the jetties' ends, had in its shoalest part a

navigable depth of 27 feet, and that throughout this extent the 26-foot channel had a least width of 150 feet, and the 25-foot channel a least width of 230 feet.

M. R. BROWN,
Captain of Engineers, U. S. A.

JUNE 19, 1879.

I certify that on the 18th of June, 1879, there was a channel at the mouth of South Pass, through the jetties, 26 feet in depth and not less than 200 feet in width at the bottom, measured at average flood-tide, and extending from a wider and deeper channel in South Pass to deeper water in the Gulf of Mexico.

M. R. BROWN,
Captain of Engineers, U. S. A.

I certify that on the 17th June, 1879, there was a channel through the shoal at the head of South Pass having, at average flood-tide, a least depth of 24.4 feet.

M. R. BROWN,
Captain of Engineers, U. S. A.

JULY 10, 1879.

I certify that on the 8th day of July, 1879, there was a channel at the mouth of South Pass, through the jetties, 30 feet in depth without regard to width, measured at average flood-tide, and extending from a wider and deeper channel in South Pass to deeper water in the Gulf of Mexico.

M. R. BROWN,
Captain of Engineers, U. S. A.

JULY 10, 1879.

I certify that on the 10th day of July, 1879, there was a navigable channel through the shoal at the head of South Pass, having at average flood-tide a least depth of 26 feet.

M. R. BROWN,
Captain of Engineers, U. S. A.

SEDIMENT OBSERVATIONS—MAINTENANCE OF CHANNEL.

Since July 1, 1879, Mr. Eads has been paid for obtaining the 26-foot, channel 200 feet wide, and the 30-foot channel without regard to width at the mouth of South Pass, and simultaneously the requisite depth at the head of South Pass. I refer to this because the many surveys required of me in connection with the attainment of these channels have prevented the collection of some of the data desired for my annual report, and have retarded the procurement of more. Simultaneous current observations in the three passes have been necessarily deferred until cold weather.

Now that Mr. Eads's pecuniary interest in the success of the jetties is limited to the maintenance of depths hitherto obtained, it has become very important to know when surveys should be made at all doubtful points to ascertain whether or not the designated depths and widths have been preserved continuously.

It is quite well settled that little difficulty is experienced in keeping a wide and deep channel except that when in high stages of the river coarse sand is being brought down the pass in suspension; also that sand less than 0.05 of an inch in diameter does not remain long on the bar, and that only when sand coarser than this is to be found, need we feel any apprehension as to the maintenance of a good channel. Hence, the intelligent observation of sediment samples indicates when surveys are needed with unusual frequency.

When the river is not high or rising and coarse sand is not carried in suspension it seems that twice a month is as often as surveys are needed, and with the present strength of my party at Port Eads this frequency is easily attained. The sediment observations are now, therefore, of greatly increased importance.

Date.	Time.	Location—at Cory's base.	Depth at which specimen was taken (in feet).	Ratio of sediment to water by weight.	Tide.		Carrollton gauge.
1879.							
Mar. 4	1.52 p. m.	150 feet from west shore	Surface..	.0004538	2.36	Rising	9.50
Do.	do	do	16.4	.0006717	do	do	do
Do.	do	do	32	.0007397	do	do	do
Do.	2.02 p. m.	Center of pass	Surface..	.0008583	do	do	do
Do.	do	do	8	.0006312	do	do	do
Do.	do	do	16	.0007296	do	do	do
Do.	do	do	24	.0007541	do	do	do
Do.	do	do	32	.0008636	do	do	do
Do.	2.15 p. m.	150 feet from east shore	Surface..	.0005511	do	do	do
Do.	do	do	14.2	.0007121	do	do	do
Do.	do	do	28.	.0008609	do	do	do
Mar. 8	1.40 p. m.	150 feet from west shore	Surface..	.0006176	1.96	Falling	9.40
Do.	do	do	13.6	.0005682	do	do	do
Do.	do	do	26.5	.0005731	do	do	do
Do.	p. m.	Center of pass	Surface..	.0004427	do	do	do
Do.	do	do	8	.0004355	do	do	do
Do.	do	do	16	.0006349	do	do	do
Do.	do	do	24	.0000045	do	do	do
Do.	do	do	32	.0007135	do	do	do
Do.	1.55 p. m.	150 feet from east shore	Surface..	.0005304	do	do	do
Do.	do	do	13.4	.0005966	do	do	do
Do.	do	do	26.0	.0007950	do	do	do
Mar. 11	1.40 p. m.	150 feet from west shore	Surface..	.0005205	2.41	do	9.20
Do.	do	do	13.3	.0004926	do	do	do
Do.	do	do	26.0	.0005218	do	do	do
Do.	1.48 p. m.	Center of pass	Surface..	.0003393	do	do	do
Do.	do	do	8	.0004089	do	do	do
Do.	do	do	16	.0005217	do	do	do
Do.	do	do	24	.0005814	do	do	do
Do.	do	do	32	.0007477	do	do	do
Do.	1.55 p. m.	150 feet from east shore	Surface..	.0004961	do	do	do
Do.	do	do	13.5	.0007171	do	do	do
Do.	do	do	26.5	.0006716	do	do	do
Mar. 15	1.45 p. m.	150 feet from west shore	Surface..	.0004400	2.86	Rising	8.50
Do.	do	do	13	.0005078	do	do	do
Do.	do	do	25	.0005645	do	do	do
Do.	1.48 p. m.	Center of pass	Surface..	.0003010	do	do	do
Do.	do	do	8	.0004076	do	do	do
Do.	do	do	16	.0004513	do	do	do
Do.	do	do	24	.0006118	do	do	do
Do.	do	do	33	.0005598	do	do	do
Do.	1.55 p. m.	150 feet from East Pass	Surface..	.0003257	do	do	do
Do.	do	do	16	.0004202	do	do	do
Do.	do	do	31	.0004494	do	do	do

observations.

Maximum and minimum reading of gauge time and difference of same, 2.76 being the reading for average flood-tide.					Description of sediment.	Wind.		Velocity at a fixed point in mean thread of current at one-half actual mean depth of cross-section, in feet per second.
High-water.	Low-water.	Difference.	Time.			Direction.	Velocity per hour.	
			High-water.	Low-water.				
2.72	1.45	1.27	5.50 p. m.	5.00 a. m.	All clay	E. $\frac{1}{2}$ N ..	7.5	3.891
do	do	do	do	do	do			
do	do	do	do	do	A trace sand, very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	A trace sand, fine and very fine; rest clay.			
do	do	do	do	do	6 or 8 per cent. sand, fine and very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	A trace sand, fine and very fine; rest clay.			
2.43	1.96	0.47	11.55 p. m.	3.20 p. m.	Perhaps 6 per cent. sand, fine and very fine; rest clay.	S. E.	1.05	4.348
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	A trace sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{10}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{10}$ very fine sand; rest clay.			
do	do	do	do	do	Over $\frac{1}{2}$ sand, considerable coarse, maximum grain 8 or $\frac{1}{1000}$.			
do	do	do	do	do	All clay			
do	do	do	do	do	A trace very fine sand; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, maximum grains $\frac{1}{1000}$ diameter; rest clay.			
2.65	1.50	1.15	10.30 a. m.	9.35 p. m.	A trace sand, fine and very fine; rest clay.	East	5.5	4.167
do	do	do	do	do	do			
do	do	do	do	do	do			
do	do	do	do	do	do			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{10}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; a few coarse grains, maximum $\frac{1}{1000}$ diameter; rest clay.			
do	do	do	do	do	About $\frac{1}{10}$ sand, fine and very fine; a few coarse grains, maximum $\frac{1}{1000}$ diameter; rest clay.			
3.01	1.47	1.54	2.35 p. m.	2.35 a. m.	A trace sand, very fine; rest clay.	S. E.	7.5	3.521
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	A trace sand, fine and very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{10}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{10}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			

Date.	Time.	Location—at Cory's base.	Depth at which specimen was taken (in feet).	Ratio of sediment to water by weight.	Tide.	Carrollton gauge.	
1879.							
Mar. 22	1.30 p. m.	150 feet from West Pass	Surface..	.0002952	2.46	Falling ...	8.40
Do.	do	do	12.9	.0003947	do	do	do
Do.	do	do	25	.0006575	do	do	do
Do.	1.37 p. m.	Center of pass	Surface..	.0003148	do	do	do
Do.	do	do	8	.0004219	do	do	do
Do.	do	do	16	.0004319	do	do	do
Do.	do	do	24	.0005633	do	do	do
Do.	do	do	32	.0005581	do	do	do
Do.	1.47 p. m.	150 feet from east shore	Surface..	.0003262	do	do	do
Do.	do	do	15	.0005186	do	do	do
Do.	do	do	29	.0005021	do	do	do
Mar. 29	9.20 a. m.	150 feet from west shore	Surface..	.0003003	2.54	Rising ...	8.60
Do.	do	do	12.7	.0004015	do	do	do
Do.	do	do	25.0	.0006294	do	do	do
Do.	9.30 a. m.	Center of pass	Surface..	.0003379	do	do	do
Do.	do	do	8	.0004357	do	do	do
Do.	do	do	16	.0004499	do	do	do
Do.	do	do	24	.0005962	do	do	do
Do.	do	do	33	.0004856	do	do	do
Do.	9.40 a. m.	150 feet from east shore	Surface..	.0003044	do	do	do
Do.	do	do	13.9	.0004822	do	do	do
Do.	do	do	27.0	.0006610	do	do	do
Apr. 1	2.10 p. m.	About 150 feet from east shore..	Surface..	.0002505	2.86	Stationary.	9.10
Do.	do	do	13.1	.0004509	do	do	do
Do.	do	do	25.5	.0006674	do	do	do
Do.	2.15 p. m.	Center of pass	Surface..	.0002675	do	do	do
Do.	do	do	8	.0004670	do	do	do
Do.	do	do	16	.0005633	do	do	do
Do.	do	do	24	.0007061	do	do	do
Do.	do	do	32	.0007146	do	do	do
Do.	2.20 p. m.	About 150 feet from west shore.	Surface..	.0002935	do	do	do
Do.	do	do	15.7	.0005787	do	do	do
Do.	do	do	30.5	.0006059	do	do	do
Apr. 5	10.26 a. m.	do	Surface..	.0005409	2.16	Falling ...	9.40
Do.	do	do .....		.0006697	do	do	do
Do.	do	do .....		.0008686	do	do	do
Do.	10.35 a. m.	Center of pass	Surface..	.0005208	do	do	do
Do.	do	do	8	.0005969	do	do	do
Do.	do	do	16	.0005650	do	do	do
Do.	do	do	24	.0006910	do	do	do
Do.	do	do	33	.0007876	do	do	do
Do.	do	About 150 feet from east shore..	Surface..	.0004885	do	do	do
Do.	do	do	17.7	.0005411	do	do	do

observations—Continued.

Maximum and minimum reading of gauge, time, and difference of same, 2.76 being the reading for average flood-tide.					Description of sediment.	Wind.		Velocity at a fixed point in mean thread of current at one-half actual mean depth of cross-section, in feet per second.
High-water.	Low-water.	Difference.	Time.			Direction.	Velocity per hour.	
			High-water.	Low-water.				
	2.33			8.45 p. m.	All clay	S. S. W.	2.10	3.758
	do			do	A trace sand, fine and very fine; rest clay.			
	do			do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
	do			do	All clay			
	do			do	do			
	do			do	do			
	do			do	do			
	do			do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
	do			do	A trace very fine sand; rest clay.			
	do			do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
	do			do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
2.95			12 m		All clay	N. W. $\frac{1}{2}$ W	6.0	3.721
do			do		do			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		All clay			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		A trace sand, fine and very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		All clay			
do			do		About $\frac{1}{2}$ very fine sand; rest clay.			
do			do		A trace sand, very fine; rest clay.			
1.75				1.20 a. m.	About $\frac{1}{2}$ sand, mostly very fine; rest clay.			3.610
do				do	About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do				do	All clay			
do				do	About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do				do	All clay			
do				do	A trace sand, very fine; rest clay			
do				do	About $\frac{1}{2}$ sand, very fine; rest clay.			
do				do	All clay			
do				do	About $\frac{1}{2}$ sand, very fine; rest clay.			
do				do	do			
do				do	About $\frac{1}{2}$ sand, very fine; rest clay.			
2.18	1.88	0.30	9.30 a. m.	4.50 p. m.	About $\frac{1}{2}$ sand, very fine; rest clay.	E. $\frac{1}{2}$ N	16.5	4.237
do	do	do	do	do	About $\frac{1}{2}$ sand, very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	A trace very fine sand; rest clay			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	Over $\frac{1}{2}$ sand; a very few coarse grains; maximum diameter, $\frac{1}{16}$ in; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	Over $\frac{1}{2}$ sand, fine and very fine; rest clay.			

Date.	Time.	Location—at Cory's base.	Depth at which specimen was taken (in feet.)	Ratio of sediment to water by weight.	Tide.		Carrollton gauge.
1879. Apr. 5	10.35 a. m.	About 150 feet from east shore.	34	.0006518	2.16	Falling...	9.40
Apr. 8	2.30 p. m.	do	Surface..	.0006106	2.06	do	9.50
Do	do	do	13.2	.0008020	do	do	do
Do	do	do	26.0	.0008825	do	do	do
Do	2.35 p. m.	Center of pass	Surface..	.0004828	do	do	do
Do	do	do	8	.0005263	do	do	do
Do	do	do	16	.0007236	do	do	do
Do	do	do	24	.0007621	do	do	do
Do	do	do	3	.0008219	do	do	do
Do	2.45 p. m.	About 150 feet from west shore.	Surface..	.0004699	do	do	do
Do	do	do	14	.0006538	do	do	do
Do	do	do	27	.0006475	do	do	do
Apr. 15	1.35 p. m.	About 150 feet from east shore..	Surface	.0004254	2.07	Stationary.	9.60
Do	do	do	13.5	.0006589	do	do	do
Do	do	do	26.0	.0009242	do	do	do
Do	1.45 p. m.	Center of pass	Surface..	.0004710	do	do	do
Do	do	do	8	.0004873	do	do	do
Do	do	do	16	.0006990	do	do	do
Do	do	do	24	.0008747	do	do	do
Do	do	do	33.5	.0008256	do	do	do
Do	1.55 p. m.	About 150 feet from west shore.	Surface..	.0006139	do	do	do
Do	do	do	13.6	.0005586	do	do	do
Do	do	do	26	.0007623	do	do	do
Apr. 19	1.45 p. m.	About 150 feet from east shore..	Surface..	.0006571	1.76	Falling...	9.70
Do	do	do	13.5	.0007824	do	do	do
Do	do	do	26.0	.0009627	do	do	do
Do	1.50 p. m.	Center of pass	Surface..	.0004820	do	do	do
Do	do	do	8	.0007775	do	do	do
Do	do	do	16	.0008111	do	do	do
Do	do	do	24	.0008962	do	do	do
Do	do	do	32	.0009548	do	do	do
Do	2.00 p. m.	About 150 feet from west shore.	Surface..	.0005776	do	do	do
Do	do	do	14.3	.0005276	do	do	do
Do	do	do	28.0	.0006966	do	do	do
Apr. 21	1.25 p. m.	About 150 feet from east shore..	Surface..	.0006176	2.36	do	9.50
Do	do	do		.0008219	do	do	do
Do	do	do		.0008859	do	do	do
Do	1.35 p. m.	Center of pass	Surface..		do	do	do
Do	do	do		.0005297	do	do	do
Do	do	do		.0006373	do	do	do
Do	do	do		.0008092	do	do	do

observations—Continued.

Maximum and minimum reading of gauge, time, and difference of same, 2.76 being the reading for average flood-tide.					Description of sediment.	Wind.		Velocity at a fixed point in mean thread of current at one-half actual mean depth of cross-section, in feet per second.
High-water.	Low-water.	Difference.	Time.			Direction.	Velocity per hour.	
			High-water.	Low-water.				
2.18	1.88	0.30	9.30 a. m.	4.50 p. m.	Over $\frac{1}{2}$ sand, fine and very fine; rest clay.			
2.85			9.05 a. m.		About $\frac{1}{2}$ sand, fine and very fine; rest clay.	South	6.2	4.706
do			do		Over $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		do			
do			do		A trace sand, fine and very fine; rest clay.			
do			do		do			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, mostly fine.			
do			do		About $\frac{1}{2}$ sand; a few coarse grains; maximum diameter, $\frac{1}{16}$; rest clay.			
do			do		All clay			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do			do		All clay	South	8.5	3.676
do			do		About $\frac{1}{2}$ sand, very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do			do		All clay			
do			do		A trace very fine sand; rest clay			
do			do		About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do			do		About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do			do		A trace sand, very fine; rest clay			
do			do		About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
2.40	1.72	0.68	7.30 a. m.	5.00 p. m.	do	North	5.0	4.504
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; a few coarse grains; maximum diameter, $\frac{1}{16}$; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	Over $\frac{1}{2}$ sand; a very few coarse grains; maximum diameter, $\frac{1}{16}$; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, very fine; rest clay.			
2.70	1.70	1.00	8.05 a. m.	6.45 p. m.	A trace sand, very fine; rest clay	East	1.44	3.636
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			

Date.	Time.	Location—at Corey's base.	Depth at which specimen was taken (in feet).	Ratio of sediment to water by weight.	Tide.		Carrollton gauge.
1879. Apr. 21	1.35 p. m..	Center of pass.....		.0007986	2.36	Falling....	9.50
Do...	1.45 p. m..	About 150 feet from west shore.	Surface..	.0006815	do	do	do
Do...	do	do			do	do	do
Do...	do	do		.0007947	do	do	do
Apr. 26	1.42 p. m..	About 150 feet from east shore	Surface	.0004305	3.09	do	9.80
Do...	do	do	14.4	.0006264	do	do	do
Do...	do	do	27.5	.0008034	do	do	do
Do...	1.50 p. m..	Center of pass.....	Surface	.0004534	do	do	do
Do...	do	do	8	.0006068	do	do	do
Do	do	do	16	.0007426	do	do	do
Do	do	do	24	.0008732	do	do	do
Do	do	do	33.5		do	do	do
Do	1.57 p. m..	About 150 feet from west shore	Surface	.0006159	do	do	do
Do	do	do	14.9	.0006440	do	do	do
Do	do	do	29.0	.0008096	do	do	do
Apr. 29	1.38 p. m..	About 150 feet from east shore.	Surface	.0006247	2.76	Stationary	9.70
Do	do	do	14.2		do	do	do
Do	do	do	28.0	.0011108	do	do	do
Do	1.45 p. m..	Center of pass.....	Surface	.0005871	do	do	do
Do	do	do	8	.0007119	do	do	do
Do	do	do	16	.0010881	do	do	do
Do	do	do	24	.0011242	do	do	do
Do	do	do	33	.0007606	do	do	do
Do	1.52 p. m..	About 150 feet from west shore.	Surface	.0010223	do	do	do
Do	do	do	19.0	.0010352	do	do	do
Do	do	do	37.0	.0011082	do	do	do
May 3	2.26 p. m..	About 150 feet from east shore.	Surface	.0008932	2.06	Falling....	9.40
Do	do	do	12.9	.0014880	do	do	do
Do	do	do	24.0	.0015725	do	do	do
Do	2.34 p. m..	Center of pass.....	Surface	.0008993	do	do	do
Do	do	do	8	.0011045	do	do	do
Do	do	do	16	.0014984	do	do	do
Do	do	do	24	.0015534	do	do	do
Do	do	do	32	.0017239	do	do	do
Do	2.50 p. m..	About 150 feet from west shore.	Surface	.0011665	do	do	do
Do	do	do	15.3	.0012555	do	do	do
Do	do	do	29.5	.0014774	do	do	do
May 6	1.45 p. m..	About 150 feet from east shore.	Surface	.0008805	2.15	do	9.00
Do	do	do	13	.0012604	do	do	do
Do	do	do	25	.0012937	do	do	do
Do	1.50 p. m..	Center of pass.....	Surface	.0008466	do	do	do
Do	do	do	8	.0010284	do	do	do
Do	do	do	16		do	do	do
Do	do	do	24	.0011451	do	do	do
Do	do	do	33.5	.0013370	do	do	do
Do	2.00 p. m..	About 150 feet from west shore.	Surface	.0008738	do	do	do
Do	do	do	14.2	.0009662	do	do	do
Do	do	do	27.4	.0010150	do	do	do
May 10	4.05 p. m..	About 150 feet from east shore.	Surface	.0005060	2.51	do	8.00
Do	do	do	14.3	.0008457	do	do	do
Do	do	do	26.3	.0010178	do	do	do
Do	4.10 p. m..	Center of pass.....	Surface	.0005666	do	do	do
Do	do	do	8	.0006301	do	do	do

observations—Continued.

Maximum and minimum reading of gauge, time, and difference of same, 2.76 being the reading for average flood tide.					Description of sediment.	Wind.		Velocity at a fixed point in mean thread of current at one-half actual mean depth at cross-section, in feet per second.
High-water.	Low-water.	Difference.	Time.			Direction.	Velocity per hour.	
			High-water.	Low-water.				
2.70	1.70	1.00	8.05 a. m.	6.45 p. m.	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	A trace sand, very fine, rest clay			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
3.30	1.85	1.45	9.40 a. m.	9.30 p. m.	All clay			4.098
do	do	do	do	do	A trace sand, very fine; rest clay			
do	do	do	do	do	do			
do	do	do	do	do	All clay			
do	do	do	do	do	About $\frac{1}{2}$ sand, mostly very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	do			
do	do	do	do	do	All clay			
do	do	do	do	do	A trace very fine sand; rest clay.			
do	do	do	do	do	do			
2.94	do	do	1.00 p. m.	do	All clay	N. E.	9.3	3.690
do	do	do	do	do	do			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	do			
do	do	do	do	do	A trace very fine sand; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ very fine sand; rest clay			
do	do	do	do	do	All clay			
do	do	do	do	do	A trace sand, very fine; rest clay			
do	do	do	do	do	do			
do	do	do	do	do	Over $\frac{1}{2}$ sand, mostly very fine; rest clay.			
2.66	2.14	0.52	8.20 a. m.	4.15 p. m.	A trace sand, very fine; rest clay	S. E.	5.7	4.650
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	Nearly $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
do	do	do	do	do	Over $\frac{1}{2}$ fine and very fine sand; rest clay.			
3.39	1.28	2.11	6.45 a. m.	7.25 p. m.	All clay	S. E.	6.2	4.040
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	A trace sand, fine and very fine; rest clay.			
do	do	do	do	do	do			
do	do	do	do	do	A trace sand, very fine; rest clay.			
do	do	do	do	do	About $\frac{1}{2}$ sand, a few grains coarse, maximum diameter $\frac{1}{16}$ in; rest clay.			
do	do	do	do	do	A trace sand, very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			
3.22	No rec'd	do	11.25 a. m.	do	do	N. E.	12.6	3.863
do	do	do	do	do	do			
do	do	do	do	do	About $\frac{1}{2}$ sand, fine and very fine; rest clay.			
do	do	do	do	do	All clay			
do	do	do	do	do	do			

Date.	Time.	Location—at Cory's base.	Depth at which specimen was taken (in feet).	Ratio of sediment to water by weight.	Tide.	Carrollton gauge.	
1879.							
May 10	4.10 p. m.	Center of pass.....	16	.0008129	2.51	Falling....	8.00
Do.	do	do	24	.0008870	do	do	do
Do.	do	do	32	.0009547	do	do	do
Do.	4.26 p. m.	About 150 feet from west shore.	Surface	.0006970	do	do	do
Do.	do	do	14	.0008397	do	do	do
Do.	do	do	25	.0008294	do	do	do
May 13	2.40 p. m.	About 150 feet from east shore	Surface	.0008153	2.66	do	7.20
Do.	do	do	13	.0006172	do	do	do
Do.	do	do	23	.0007337	do	do	do
Do.	2.50 p. m.	Center of pass.....	Surface	.0004319	do	do	do
Do.	do	do	8	.0004362	do	do	do
Do.	do	do	16	.0006494	do	do	do
Do.	do	do	24	.0008477	do	do	do
Do.	do	do	30	.0008776	do	do	do
Do.	3.00 p. m.	About 150 feet from west shore.	Surface	.0005012	do	do	do
Do.	do	do	14	.0005171	do	do	do
Do.	do	do	25	.0007813	do	do	do
May 17	1.25 p. m.	About 150 feet from east shore	Surface	.0004319	1.91	do	6.30
Do.	do	do	13.1	.0008397	do	do	do
Do.	do	do	23.0	.0010252	do	do	do
Do.	1.36 p. m.	Center of pass.....	Surface	.0004574	do	do	do
Do.	do	do	8	.0007195	do	do	do
Do.	do	do	16	.0008393	do	do	do
Do.	do	do	24	.0008670	do	do	do
Do.	do	do	30	.0010189	do	do	do
Do.	1.45 p. m.	About 150 feet from west shore.	Surface	.0007055	do	do	do
Do.	do	do	13	.0006591	do	do	do
Do.	do	do	23	.0007636	do	do	do
May 24	1.35 p. m.	About 150 feet from east shore	Surface	.0003389	2.76	do	4.50
Do.	do	do	13	.0003537	do	do	do
Do.	do	do	23	.0004533	do	do	do
Do.	1.43 p. m.	Center of pass.....	Surface	.0002490	do	do	do
Do.	do	do	8	.0002753	do	do	do
Do.	do	do	16	.0002688	do	do	do
Do.	do	do	24	.0003578	do	do	do
Do.	do	do	30	.0003719	do	do	do
Do.	1.62 p. m.	About 150 feet from west shore.	Surface	.0002854	do	do	do
Do.	do	do	13.0	.0002809	do	do	do
Do.	do	do	23.5	.0002822	do	do	do
May 27	1.55 p. m.	About 150 feet from east shore	Surface	.0002474	2.94	do	4.00
Do.	do	do	12.5	.0002513	do	do	do
Do.	do	do	22.0	.0002087	do	do	do
Do.	2.01 p. m.	Center of pass.....	Surface	.0001417	do	do	do
Do.	do	do	8	.0001539	do	do	do
Do.	do	do	16	.0002039	do	do	do
Do.	do	do	24	.0002484	do	do	do
Do.	do	do	31	.0004069	do	do	do
Do.	2.14 p. m.	About 150 feet from west shore.	Surface	.0001718	do	do	do
Do.	do	do	14	.0002219	do	do	do
Do.	do	do	25	.0002322	do	do	do
May 31	9.54 a. m.	About 150 feet from east shore	Surface	.0001852	2.54	do	3.80
Do.	do	do	12.5	.0001907	do	do	do
Do.	do	do	22.0	.0002128	do	do	do
Do.	10.02 a. m.	Center of pass.....	Surface	.0001928	do	do	do
Do.	do	do	8	.0002144	do	do	do
Do.	do	do	16	.0001867	do	do	do
Do.	do	do	24	.0002108	do	do	do
Do.	do	do	29	.0002673	do	do	do
Do.	10.12 a. m.	About 150 feet from west shore.	Surface	.0001627	do	do	do
Do.	do	do	13	.0001573	do	do	do
Do.	do	do	23	.0001615	do	do	do

Date.	Time.	Location—at Cory's base.	Depth at which specimen was taken (in feet).	Ratio of sediment to water by weight.	Tide.		Carrollton gauge.
1879.							
June 3	4.59 p. m.	About 150 feet from east shore.	Surface	.0003806	1.50	Falling	3.60
Do	do	do	13.6	.0003267	do	do	do
Do	do	do	24.0	.0005114	do	do	do
Do	5.06 p. m.	Center of pass.	Surface	.0002446	do	do	do
Do	do	do	8	.0003019	do	do	do
Do	do	do	16	.0003161	do	do	do
Do	do	do	24	.0004127	do	do	do
Do	do	do	30	.0004744	do	do	do
Do	5.15 p. m.	About 150 feet from west shore.	Surface	.0003141	do	do	do
Do	do	do	12.5	.0002193	do	do	do
Do	do	do	22.0	.0003348	do	do	do
June 10	1.20 p. m.	About 150 feet from east shore.	Surface	.0001395	2.74	do	2.80
Do	do	do	11.8	.0001221	do	do	do
Do	do	do	20.5	.0001657	do	do	do
Do	1.23 p. m.	Center of pass.	Surface	.0001650	do	do	do
Do	do	do	8	.0001103	do	do	do
Do	do	do	16	.0001492	do	do	do
Do	do	do	24	.0001992	do	do	do
Do	do	do	29	.0002832	do	do	do
Do	1.39 p. m.	About 150 feet from west shore.	Surface	.0000984	do	do	do
Do	do	do	13	.0000938	do	do	do
Do	do	do	23	.0001683	do	do	do

DEEP-SEA SURVEY TO A DEPTH GREATER THAN FIFTY FEET.

In August, 1876, a survey was made along nine radial lines, starting near the ends of the jetties and projecting into a depth of about 320 feet of water. This survey was made on the United States dredgeboat *Essayons*; such a ship, having a long deck high above the water, is needed to make such a survey within the limits of time at my disposal for the purpose. No opportunity for repeating this survey presented itself until lately, when I ascertained that I could secure the use of the same ship for a few weeks, paying her expenses from the appropriation for the examinations and surveys of South Pass. Accordingly, on the 15th June, the *Essayons's* commander reported to me with his ship at South Pass.

Several days with strong wind offshore occurred at once, and great care was taken to make no soundings on days when an examination showed the existence of strong cross-currents, or of any cross-currents over one-third of a mile per hour. Nearly always these currents were insignificant. The boat had to be retained fifteen days in order to obtain seven days appropriate for the work. The lines were very carefully run. Many checks were made on the angles by having from three to five assistants reading them simultaneously, and by running on ranges, &c.

One capable leadsmen watched another who cast the lead, and the results are as reliable as can be obtained, except by the slow and costly use of the accurate apparatus employed by the Coast Survey, losing an iron shot at each cast.

Still it must be borne in mind that we have very little knowledge of how far the lead sinks into the bottom, and we know that this distance cannot be uniform over the whole area surveyed, and that it may not be quite the same in a certain locality at different times. Still the surveys are very valuable, and give us the best attainable data.

Five lines are selected, which almost exactly coincide with lines sounded in August, 1876, and which divide pretty equally the angular distance between lines which inclose most of the water of the survey. These lines are delineated on sheet No. 4 graphically, and they show the amount of shoaling and deepening between August, 1876, and June, 1879. They are numbered 1, 2, 3, 5, and 11.

The entire survey is charted on sheet No. 4. Fourteen lines in all were run. The mean intersection of these lines with the contour lines successively 50 feet deeper by designation, that is, beginning at the 150-foot contour and increasing by successive stages 50 feet at a time until the 300-foot contour is included, will give us, approximately, the mean position of the several contours with reference to any given base. Including only the area common to the surveys of both 1876 and 1879, we have in the first 9 lines, and in the second 11 lines. We use for comparison only 5 lines, which nearly coincide in location in the two surveys. With reference to a right-line base joining the old ends of the jetties, perpendicular ordinates dropped from the points of intersection of the 5 lines of soundings with these several contours give for the two surveys results as follows:

Movements of curves from August, 1876, to June, 1879.

Designation of contour.	150 feet.	200 feet.	250 feet.	300 feet.
Advanced seaward, in feet.....	170	395	1,105	275
Receded landward, in feet.....				

SURVEY OF SOUTH PASS FROM NEAR HEAD OF PASSES LIGHT-HOUSE TO SOUTH PASS LIGHT-HOUSE.

In the ninth report I have given an account of the methods followed in making a survey of the main body of South Pass in January, 1878.

In the month of June, 1879, the survey was repeated, using the same methods as before.

The results are apparent in charts No. 5 and 6, appended, and the sections on sheet No. 5.

The table given below shows the amount of fill or scour in the interval of about a year and a half in successive sections 1,000 feet long, and the sections represented on sheet No. 5 show graphically the difference in mean depths obtained by a comparison of the survey of June, 1879, with that of January, 1878:

Comparative mean depth of South Pass for each 1,000 feet in length from station Bayou Grande to South Pass light-house, from surveys made January, 1878, and June, 1879.

From Bayou Grande down, in divisions 1,000 feet long.	Distance in miles and decimals of a mile of center of division above East Point Station.	Mean depth and number of soundings.				Depth of average fill or scour over area from January, 1878, to June, 1879, in feet.	Area of division in square yards.	Total amount of scour or fill from January, 1878, to June, 1879, in cubic yards.	
		January, 1878.		June, 1879.				Scour.	Fill.
		Mean depth.	Number of soundings.	Mean depth.	Number of soundings.				
0 to 1,000	5.73	29.717	39	21.201	58	0.484	101,111	16,312	.....
1,000 to 2,000	5.54	22.682	45	23.827	58	F. 0.145	91,666	34,986	.....
2,000 to 3,000	5.35	25.624	41	25.358	55	F. 0.266	82,777	.....	7,339
3,000 to 4,000	5.16	25.744	43	26.137	53	F. 0.393	76,666	19,043	.....
4,000 to 5,000	4.98	27.163	38	25.636	49	F. 1.527	73,888	.....	37,609
5,000 to 6,000	4.79	29.558	39	30.020	44	0.462	66,666	10,266	.....
6,000 to 7,000	4.60	31.920	34	32.082	40	0.162	61,111	3,300	.....
7,000 to 8,000	4.41	29.081	27	29.391	37	0.310	63,333	66,544	.....
8,000 to 9,000	4.22	29.820	35	30.617	51	0.797	65,555	17,415	.....
9,000 to 10,000	4.04	29.002	34	29.696	53	0.694	67,777	15,679	.....
10,000 to 11,000	3.85	28.800	37	28.241	41	1.441	70,555	33,890	.....
11,000 to 12,000	3.66	25.487	39	25.755	60	0.268	75,000	6,700	.....
12,000 to 13,000	3.07	26.535	34	26.743	44	0.208	75,000	5,200	.....
13,000 to 14,000	3.28	27.835	45	27.535	48	F. 0.300	68,888	.....	6,888
14,000 to 15,000	3.09	29.125	36	30.655	45	1.530	61,111	24,756	.....
15,000 to 16,000	2.90	29.355	32	31.477	39	2.122	56,666	40,081	.....
16,000 to 17,000	2.71	30.632	37	31.829	41	1.197	56,666	22,609	.....
17,000 to 18,000	2.52	29.355	29	30.048	31	0.603	58,333	13,474	.....
18,000 to 19,000	2.33	29.189	37	29.011	43	F. 0.178	61,666	.....	3,658
19,000 to 20,000	2.14	26.376	34	28.333	38	1.937	65,000	41,968	.....
20,000 to 21,000	1.95	25.060	40	26.579	59	1.519	72,777	36,849	.....
21,000 to 22,000	1.76	22.478	23	26.427	40	3.947	74,444	97,993	.....
22,000 to 23,000	1.57	26.648	31	27.333	48	0.685	72,777	16,617	.....
23,000 to 24,000	1.38	24.706	30	26.567	43	1.861	72,222	44,801	.....
24,000 to 25,000	1.19	26.530	42	26.193	59	F. 0.337	72,222	.....	8,112
25,000 to 26,000	1.00	28.059	44	26.980	57	F. 1.079	71,111	.....	25,576
26,000 to 27,000	0.81	26.328	38	25.869	56	F. 0.432	68,888	.....	9,919
27,000 to 28,000	0.62	26.888	34	26.946	49	0.056	67,777	1,810	.....
28,000 to 29,000	0.43	26.529	29	28.205	39	1.676	58,333	32,598	.....
Total.....							1,959,986	533,391	99,101

Total area from Bayou Grande down square yards.. 1,959,986
 Total scour from January, 1878, to June, 1879 cubic yards.. 434,290
 Average depth of scour feet.. 0.664
 Total scour from June, 1875, to June, 1879 cubic yards.. 737,536
 Average depth of scour feet.. 0.113

Comparative mean depth of South Pass for each 1,000 feet in length, from station Bayou Grande to Head of Pass, from surveys made January, 1878, and June, 1879.

From Grand Bayou up, in divisions 1,000 feet long (distance in feet).	Distance in miles and decimals of a mile of center of division above East Point Station.	Mean depth and number of soundings.				Depth of average fill or scour over area from January, 1878, to June, 1879, in feet.	Area of division in square yards.	Total amount of scour or fill over area from January, 1878, to June, 1879, in cubic yards.	
		January, 1878.		June, 1879.				Scour.	Fill.
		Mean depth.	Number of soundings.	Mean depth.	Number of soundings.				
0 to 1,000	5.92	20.578	39	21.477	64	S. 0.899	104,444	81,298	.....
1,000 to 2,000	6.11	25.866	36	22.872	55	2.994	92,222	.....	92,037
2,000 to 3,000	6.30	25.164	31	25.006	46	0.158	82,222	.....	4,330
3,000 to 4,000	6.49	29.768	29	29.015	33	0.753	72,222	.....	18,127
4,000 to 5,000	6.68	33.458	31	30.140	40	3.318	64,444	.....	71,275
5,000 to 6,000	6.87	33.281	33	32.841	43	0.440	63,666	.....	9,337
6,000 to 7,000	7.06	30.080	30	32.181	44	S. 2.101	68,333	47,856	.....
7,000 to 8,000	7.25	29.813	31	30.840	39	S. 1.027	67,222	23,012	.....
8,000 to 9,000	7.44	31.741	36	30.736	41	1.005	62,222	.....	20,844
9,000 to 10,000	7.63	32.200	32	31.042	42	1.158	63,333	.....	24,446
10,000 to 11,000	7.82	33.456	30	30.062	48	3.393	67,777	.....	76,656
11,000 to 12,000	8.01	31.587	31	29.873	42	1.714	68,888	.....	39,368
12,000 to 13,000	8.20	31.051	41	28.120	48	2.931	67,777	.....	66,218
13,000 to 14,000	8.39	31.392	41	29.676	46	1.716	70,000	.....	40,040
14,000 to 15,000	8.58	25.665	38	21.691	51	3.924	94,444	.....	125,006
15,000 to 16,000	8.77	20.713	52	16.708	86	4.007	122,777	.....	163,611
16,000 to 17,000	8.96	18.354	51	18.861	91	S. 0.507	113,333	18,815	.....
17,000 to 18,000	9.14	22.210	47	20.492	81	1.718	105,555	.....	6,944
18,000 to 19,000	9.33	23.564	39	23.269	71	0.295	95,000	.....	9,341
19,000 to 20,000	9.52	24.954	48	25.525	67	S. 0.571	84,444	16,072	.....
20,000 to 21,000	9.71	25.527	36	28.178	51	S. 2.651	77,777	68,728	.....
21,000 to 22,000	9.90	28.487	32	32.106	32	S. 3.619	72,222	87,123	.....
22,000 to 23,000	10.09	31.256	25	32.835	40	S. 1.579	80,888	42,574	.....
Total.....							1,861,212	335,478	766,780

Total area from Bayou Grande up.....	square yards..	1,861,212
Total fill from January, 1878, to June, 1879.....	cubic yards..	431,302
Average depth of fill.....	feet.....	0.695
Total fill from June, 1875, to June, 1879.....	square yards..	3,101,788
Average fill.....	feet.....	4.998
Total area of Pass.....	square yards..	3,821,198
Total scour in excess of fill from January, 1878, to June, 1879.....	cubic yards..	2,988
Average depth of scour for entire length of Pass.....	feet.....	.002
Total fill in excess of scour from June, 1875, to June, 1879.....	cubic yards..	3,028,635
Average depth of fill for entire length of Pass.....	feet.....	2.377

In the ninth report is a table corresponding to the present one, comparing the Coast Survey of 1875 with my own of 1878.

The main Pass, it will be seen, is considered in two sections, one from Bayou Grande upward, to near the head of South Pass; and the other from Bayou Grande down, to South Pass light-house.

For the first or upper part the average depth of fill is 0.695 foot and the total amount of fill 431,302 cubic yards. For the second, or lower part, the average scour is 0.664 foot and the total amount of scour 434,290 cubic yards.

The net fill in excess of scour from June, 1875, to June, 1879, is a little over 3,000,000 cubic yards for the whole pass above South Pass light-house, making a net decrease of depth of about 2.4 feet.

SURVEY OF ONE AND A QUARTER SQUARE MILES JUST SEAWARD OF THE ENDS OF SOUTH PASS JETTIES.—COMPARISONS OF DEPTHS OF JULY, 1878, WITH THOSE OF JULY, 1879.

This fan-shaped area was surveyed in June, 1876, June, 1877, July, 1878, and now again in July, 1879.

Its subdivision into 21 smaller areas, identical in all cases, has been heretofore noted. These subdivisions have been covered with soundings, as uniformly as is practicable, and the mean depth of each subdivision at the various dates has been ascertained.

The whole cubic volume of water divided by its surface gives us a mean depth for the whole area, and thus we ascertain, generally, the nature and amount of changes in this area.

During the last twelve months there has been a mean shoaling of 2.56 feet. In two years the shoaling is 0.76 foot.

The following table gives the comparisons at the different dates, in detail, of the quantities of water in 21 subdivisions of a fan-shaped area containing about $1\frac{1}{4}$ square miles immediately seaward of the ends of South Pass jetties.

Number of subdivision.	Area of subdivision, in square feet.	Mean depth of subdivision, in feet.				Quantity of water overlying subdivision, in cubic yards.				Excess in subdivision, in cubic yards, in favor of—				Number of soundings in subdivision on chart of—			
		1876.	1877.	1878.	1879.	1876.	1877.	1878.	1879.	1876 as compared with 1877.	1877 as compared with 1876.	1878 as compared with 1877.	1879 as compared with 1878.	1876.	1877.	1878.	1879.
1	3,359,484	98.0	86.3	94.13	89.47	12,193,680	10,737,893	11,712,156	11,133,335	1,455,787	-----	974,263	-578,821	6	8	38	57
2	1,951,904	73.0	78.43	78.12	71.79	5,277,360	5,525,320	5,647,511	5,190,423	-----	247,960	122,191	-457,088	15	20	10	38
3	3,203,900	72.324	73.458	72.38	69.32	8,606,200	8,716,392	8,588,820	8,225,954	-----	110,192	-127,572	-382,866	42	31	24	50
4	1,771,511	67.455	67.877	66.40	61.32	4,425,860	4,453,514	4,356,630	4,023,625	-----	27,654	-96,884	-333,005	33	45	22	28
5	3,195,900	75.342	73.319	77.60	74.26	8,917,980	8,678,488	9,185,253	8,789,980	239,492	-----	506,765	-375,273	38	37	27	53
6	1,951,904	81.0	75.34	74.12	5,546,570	5,855,700	5,446,535	5,358,410	-----	309,130	-409,165	-88,125	39	7	18	33	
7	3,146,568	63.63	62.45	66.38	62.66	7,415,403	7,277,886	7,735,899	7,303,062	137,517	-----	458,013	-432,837	19	26	37	90
8	1,177,965	58.40	59.50	59.74	58.30	2,547,905	2,595,882	2,606,356	2,543,532	-----	47,977	10,478	-62,824	15	31	16	33
9	1,911,590	53.7826	53.892	56.30	56.58	3,807,800	3,815,012	3,986,015	4,005,839	-----	7,212	171,003	19,824	46	65	40	30
10	1,804,280	47.9336	48.845	51.83	47.70	3,203,170	3,264,076	3,463,548	3,187,621	-----	60,906	199,472	-275,927	59	67	37	35
11	1,910,900	52.4822	54.076	56.38	54.54	3,714,389	3,827,022	3,990,242	3,860,303	-----	112,633	163,220	-129,939	56	56	27	43
12	1,177,965	50.5625	52.144	49.97	51.05	2,205,950	2,274,950	2,180,110	2,227,400	-----	69,000	-94,840	47,290	40	9	20	33
13	2,664,385	36.803	38.438	39.57	40.35	3,631,752	3,793,096	3,904,805	3,982,775	-----	161,344	111,709	77,970	66	69	74	72
14	354,931	31.464	37.02	35.00	34.73	413,612	486,650	460,095	456,546	-----	73,038	-26,555	-3,540	14	15	19	13
15	196,900	35.20	36.325	40.01	40.26	256,699	264,803	291,766	293,599	-----	8,104	26,963	1,833	15	12	12	10
16	395,320	33.377	36.471	35.92	39.01	488,689	533,908	525,922	571,281	-----	45,219	-7,986	45,359	53	24	19	11
17	1,638,310	29.2805	33.256	32.20	33.16	1,798,376	2,042,546	1,977,689	2,036,957	-----	244,170	-64,857	59,268	271	77	92	55
18	890,660	31.444	32.905	34.00	35.92	454,959	476,003	491,942	519,838	-----	21,044	15,939	27,896	36	19	19	14
19	195,900	37.0833	35.1	39.43	39.47	269,090	254,585	286,086	286,413	14,502	-----	31,498	327	12	9	11	4
20	354,931	35.654	36.85	37.20	33.47	468,690	484,415	489,016	440,088	-----	15,725	15,725	-48,928	26	10	15	13
21	1,942,785	35.012	31.723	36.50	30.93	2,519,288	2,282,681	2,626,357	2,225,567	236,607	-----	343,676	-400,790	85	39	57	52
*34,717,993		1,005.1537	1,107.378	1,134.40	-----	78,163,422	77,640,825	79,952,753	76,662,548	2,083,905	1,561,308	2,313,050	-----	-----	-----	-----	-----

* Square miles, 1.2453.

NOTE.—The quantity having the — sign in column headed “1878 as compared with 1877” is in favor of 1877. The quantity having the — sign in column headed “1879 as compared with 1878” is in favor of 1878.

$$\frac{79,952,753 \text{ cubic yards}}{34,717,993 \text{ square feet}} = 62.18 \text{ feet mean depth in July, 1878.}$$

$$\frac{76,662,548 \text{ cubic yards}}{34,717,993 \text{ square feet}} = 59.62 \text{ feet mean depth in July, 1879.}$$

Mean fill over whole area = 2.56 feet.

Mean depth in 1876 = 60.78 feet.

Mean depth in 1877 = 60.38 feet.

The shoaling indicated above for the year is also made evident by an examination of the various curves of equal depth, and by comparing those of July, 1878, with those of July, 1879.

The following table gives the movement of curves from July, 1878, to July, 1879, ascertained by measuring ordinates 50 feet apart at right angles with a base through a point in the east jetty 11,545 feet below East Point Station, the base at right angles with the chord of the east jetty terminating at same point:

Designation of curve.	20'.	30'.	40'.	50'.	60'.	70'.	80'.	90'.	100'.
Advanced seaward, in feet		9	71	257	342	282	365	328	531
Receded landward, in feet	19								

Acknowledgments are due to First Assistant Engineer C. Donovan, and Assistant Thos. L. Raymond, not only for their general faithfulness and efficiency in executing the work intrusted to them, but particularly for persistent and laborious application to the various details of the many surveys of the year and to office work, amidst the prostrating influences of climatic conditions in the swampy and malarious country which is the scene of their arduous labors.

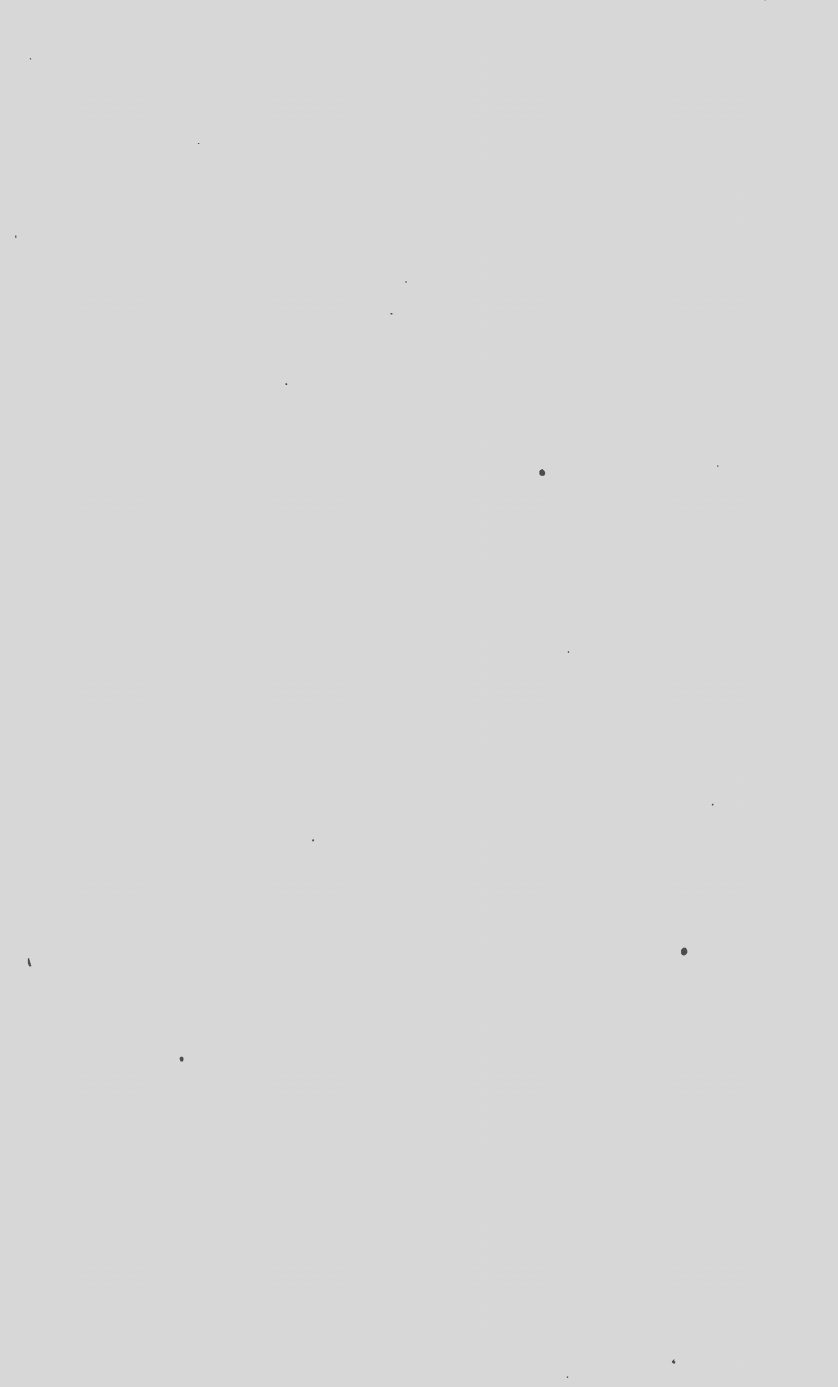
FINANCIAL STATEMENT.

Amount available from appropriations for examinations and surveys at South Pass of the Mississippi River, August 12, 1878..	\$13,741 97	
Amount appropriated by act approved March 3, 1879.....	24,000 00	\$37,741 97
Amount expended during the fiscal year ending June 30, 1879..	8,916 60	
Outstanding liabilities July 1, 1879.....	7,577 68	16,494 28
Amount available July 1, 1879.....		21,247 69
Amount available July 1, 1878.....	\$15,000 00	
Amount appropriated by act approved March 3, 1879.....	24,000 00	39,000 00
Amount expended during the fiscal year ending June 30, 1879, as follows:		
As per account of Maj. C. B. Comstock, from July 1, 1878, to August 12, 1878.....	\$1,258 03	
As per accounts of Capt. M. R. Brown, from August 12, 1878, to July 1, 1879.....	8,916 60	
Outstanding liabilities July 1, 1879.....	7,577 68	17,752 31
Amount available July 1, 1879.....		21,247 69
<i>Estimate of funds required for examinations and surveys at South Pass, Mississippi River, for the fiscal year ending June 30, 1881.</i>		
Three assistant engineers.....	\$5,400	
Ten first-class seamen and two steam engineers	8,600	
Office rent	300	
Rent of officers' quarters, <i>i. e.</i> commutation.....	422	
Rent of assistant engineers' quarters	240	
Mileage and transportation of assistants.....	500	
Coal for two launches.....	1,200	
Repairs to launches.....	1,500	
Materials and supplies for running launches.....	500	
Stationery and supplies for office.....	500	
Photolithographing charts.....	400	
Freight, telegrams, express charges, &c.....	300	
Renewal and repairs of rowboats and other contingencies, including a deep-sea survey, if practicable	2,500	
Total		22,362

Very respectfully, your obedient servant,

M. R. BROWN,
Captain of Engineers, U. S. A.

MILITARY PRISON, FORT LEAVENWORTH, KANSAS.



REPORTS

OF THE

OPERATIONS, ETC., OF THE MILITARY PRISON, FORT LEAVENWORTH, KANSAS.

GOVERNOR'S OFFICE,
UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 21, 1879.

SIR: I have the honor to transmit herewith annual reports of the quartermaster, surgeon, and chaplain, connected with this prison, for the year ending June 30, 1879.

I also inclose herewith a tabular statement of labor performed, prisoners received, discharged, &c.

During the year, large extensions of store and shop room have been made to the prison, as will be seen from the following details:

In the month of October, 1878, the building occupied as a storehouse by the chief commissary of subsistence of this department was vacated and turned over to the prison. Immediately on this transfer, work was begun on a new building, which was erected so as to connect prison building No. 2 with the building lately acquired, thus serving the double purpose of improving the appearance of the front of the prison and acquiring more room. This new building is two stories high, and is 40 by 60 feet; its lower story is occupied as a store-room, and the upper one is used at present as a chapel.

An addition has also been made to the building recently occupied as commissary storehouse, of 100 by 40 feet, two stories high, with basement. This building is occupied as follows, viz: Upper story, barrack-room for guard; lower story, cook-room for guard and prisoners, also dining-room for guard; basement, dining-room for prisoners, bakery, and scullery.

An addition, of 100 by 38 feet, and three stories high, has likewise been made to the shop building, the first floor being an extension of the blacksmith shop, the second floor of the carpenter shop, and the third floor is to be used as a shoe-shop.

Besides all these improvements, work has progressed on the prison-wall, so that now 1,517 feet are completed. Owing to the very severe weather last winter, work on the wall was somewhat impeded, so that we cannot report as much progress as we did last year.

It is very gratifying to be able to report that the conduct of the prisoners on the whole has been very good, and that severe disciplinary measures have seldom had to be resorted to. Fifteen escaped during the year, but seven were recaptured, making a loss by escape of eight.

The health of the institution has also been good, as will be seen from the surgeon's report. As the embarrassments heretofore existing on account of the crowded condition of everything have been removed, the sanitary condition of the prison ought to be better the ensuing year than it has ever been, unless, indeed, some unforeseen contingency arises.

Work in the different shops has been very successfully carried on. During the year 8,530 barrack chairs were manufactured, crated, and shipped to the different posts; also 40,000 tent pins; but this represents only a small portion of the work done in the carpenter-shop. There were also manufactured in the shoe-shop 51,756 pairs of shoes.

We have under cultivation this year, as a prison farm, about 51 acres, planted as follows, viz: 30 acres with potatoes, 11 with corn, 3 with cabbage, and the remaining 7 acres with other vegetables, such as onions, beets, turnips, &c. The crops look well and promise a good yield. All this land, with the exception of 7 acres, has been fenced, cleared, and broken with prison labor.

It is noticed in the annual report of the Quartermaster-General that he has charged the prison with clothing to the value of \$9,422.21, but it is not seen that he has allowed the prison any credit for labor given his department. The inclosed tabular statement marked B shows in detail and aggregate the labor given the Quartermaster's Department by the prison and for which no compensation has been received. It would seem but fair that due credit would be given for this labor.

There is a fund of \$6,708.02 on hand, deposited in First National Bank, Leavenworth, Kans., the accumulation of earnings of prison labor. On the 19th of November, 1878, a letter dated Adjutant-General's Office, November 14, 1878, was received. In this letter a doubt was expressed as to the legality of expending any of the prison earnings without further and more definite legislation on the matter. Would respectfully inquire what disposition will be made of this money.

It will be seen from the following statement the amount of prison appropriation received, expended, and balance turned into the Treasury during the year, viz:

Summary.	Appropriation.	Expended.
For subsistence.....	\$27, 922 50	\$17, 439 89
For fuel.....	10, 000 00	8, 633 08
Hay for bedding.....	280 00	189 54
Purchase of miscellaneous stores, stationery, material for clothing for discharged prisoners, tools, &c.; repairs and cleaning machinery; pay of foreman, mechanics; reward for apprehension and delivery of escaped prisoners; donations to prisoners at discharge.....	14, 766 50	14, 073 88
Repair of buildings.....	1, 500 00	1, 500 00
Extension to shop, new mess-room, &c.....	10, 000 00	10, 000 00
Completion of hospital.....	2, 000 00	1, 999 83
	66, 469 00	53, 836 22
Balance turned into Treasury.....		12, 632 78
Total.....	66, 469 00	66, 469 00

I beg leave to acknowledge my sincerest thanks to the department commander for the warm encouragement and substantial aid which he has extended to me in every undertaking. Whatever success has attended my labors here, is very much due to his hearty approval.

It also gives me great pleasure to acknowledge my obligations to the different officers on duty at the prison for their strict attention to duty, hearty co-operation, and exemplary conduct.

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

A. P. BLUNT,

Brevet Colonel, U. S. A., Governor.

To the ADJUTANT-GENERAL,
U. S. Army, Washington, D. C.

(Through Headquarters Department of the Missouri, Fort Leavenworth, Kans.)

[Indorsement.]

HEADQUARTERS DEPARTMENT OF THE MISSOURI,
Fort Leavenworth, Kans., July 30, 1879.

Respectfully forwarded to the Adjutant-General of the Army.

In justice to the military prison, credits should be allowed by the Quartermaster-General in his report for work done by the prison for that department, and for which no money has been paid. It will be observed in the report of the Quartermaster-General that the prison is charged with \$9,000 for clothing, but no credit is given to the prison for amounts due to it from that department.

A fair and full statement of both debt and credit is due to the prison, and, in my opinion, should be made.

Attention is invited to the fact that there is a large sum in the First National Bank of Leavenworth, the accumulation of prison earnings, concerning the expenditure of which a doubt has been expressed by the Adjutant-General of the Army.

Instructions as to the disposition of this money are requested.

JNO. POPE,

Brevet Major-General, Commanding.

Statement of funds expended in the service of the quartermaster's department at military prison, Fort Leavenworth, Kans., by Capt. A. P. Blunt, A. Q. M., U. S. A., in the fiscal year ending June 30, 1879, on account of appropriation for that fiscal year.

	Expended.	Received.
REGULAR SUPPLIES.		
Fuel, sold to officers.....		\$258 00
INCIDENTAL EXPENSES.		
Clerks, compensation of.....	\$1,720 00	1,720 00
Watchmen, hire of.....	240 00	240 00
Total.....	1,960 00	1,960 00
BARRACKS AND QUARTERS.		
Chapel, windows for.....	275 00	275 00
Commissary storehouse, erection of.....	8,797 72	10,000 00
Total expenditures.....	9,072 72	10,275 00
Total amount.....	9,072 72	10,275 00
ARMY TRANSPORTATION.		
Teamsters, hire of.....	1,200 00	1,200 00
Drainage of Fort Leavenworth.....	8,640 61	5,636 25
Total expenditures.....	4,840 61	6,836 25
Balance on hand.....	1,995 64	
Total amount.....	6,836 25	6,836 25
CLOTHING, CAMP AND GARRISON EQUIPAGE.		
Purchase of clothing and clothing material.....	207 15	
Material, &c., for chairs and tent pins.....	3,525 55	
Prisoners' work in shoe factory.....	606 30	7,397 78
Hire of foreman in shoe factory.....	1,880 00	
Total expenditures.....	6,219 00	7,397 78
Balance on hand.....	178 78	
Total amount.....	6,397 78	7,397 78
HOSPITALS.		
Repair of hospitals.....		155 00
Balance on hand.....		155 00
MILITARY PRISON.		
Special appropriation.....	38,579 58	38,710 85
Balance on hand.....	181 27	
Total amount.....	88,710 85	38,710 85

RECAPITULATION.

	On hand and received.	Transferred.	Expended.	Balance.
Regular supplies	\$258 00	\$258 00	—	—
Incidental expenses.....	1,960 00	—	\$1,960 00	—
Barracks and quarters.....	10,275 00	1,202 28	9,072 72	—
Transportation of the Army.....	6,836 25	—	4,840 61	\$1,995 64
Clothing, camp and garrison equipage.....	7,397 78	1,000 00	6,219 00	178 78
Hospitals.....	155 00	—	—	155 00
Military prison.....	38,710 85	—	38,579 58	131 27
Total.....	65,592 88	2,460 28	60,671 91	2,460 69

Respectfully submitted.

A. P. BLUNT,

Captain and Assistant Quartermaster, U. S. Army.

UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 16, 1879.

Statement of funds expended in the service of the quartermaster's department at United States military prison, Fort Leavenworth, Kans., by Capt. A. P. Blunt, assistant quartermaster, U. S. A., in the fiscal year ending June 30, 1879, on account of appropriations for fiscal year 1877-78.

	Expenses.	Receipts (on hand).
BARRACKS AND QUARTERS.		
Construction of chapel at Fort Leavenworth, Kans.....	\$2,566 17	\$2,566 17

No transfers.

Respectfully submitted.

A. P. BLUNT,

Captain and Assistant Quartermaster, U. S. Army.

UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 16, 1879.

OFFICE ACTING ASSISTANT QUARTERMASTER,
UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 21, 1879.

SIR: I have the honor to respectfully submit the following report relative to the duties and performance thereof of the acting assistant quartermaster at this prison during the past fiscal year.

The duties of acting assistant quartermaster were, from July 1, 1878, to May 31, 1879, performed by First Lieut. Granville Lewis, Fifth Infantry, who, I find from the records of this office, was assigned here by Special Orders No. 81, dated Headquarters Department of the Missouri, Assistant Adjutant-General's Office, April 25, 1877.

I inclose herewith statement of expenditures made by him from July 1 to October 31, 1878, on which date the disbursement of funds devolved upon you.

I was assigned to duty at this prison per Special Orders No. 95, Headquarters Department of Missouri, May 14, 1879, to relieve Lieutenant Lewis (he having been ordered before a retiring board), and commenced here as acting assistant quartermaster on June 1, pursuant to Order 15, Headquarters Military Prison, dated June 6, 1879, and during this short period I have not been able to ascertain anything whereby the quartermaster's department, or its administration, could be improved.

The property under my care is in good condition, and I trust that by close personal supervision of its use I shall keep the expenditures therefrom at the lowest possible point compatible with the interests of the service.

I have made no expenditure of funds, and have performed no other military duty at this prison than that above reported.

Very respectfully, your obedient servant,

F. L. DODGE,

First Lieut. Twenty-third Infantry, A. A. Q. M.

The GOVERNOR OF THE U. S. MILITARY PRISON,
Fort Leavenworth, Kans.

Statement of funds expended in the service of the quartermaster's department at United States military prison, Fort Leavenworth, Kans., by First Lieut. G. Lewis, Fifth Infantry, acting assistant quartermaster, in the fiscal year ending June 30, 1879, pertaining to appropriations for that fiscal year.

	Expended.	Received.
REGULAR SUPPLIES.		
Fuel, sales to officers		\$39 00
INCIDENTAL EXPENSES.		
Hire of clerks	\$860 00	
Hire of watchmen	120 00	1, 225 00
ARMY TRANSPORTATION.		
Hire of teamsters	600 00	750 00
CLOTHING, CAMP AND GARRISON EQUIPAGE.		
Purchase of clothing and clothing material	69 97	
For work of prisoners in shoe factory	1, 385 10	
Hire of foreman in shoe factory	960 00	9, 065 00
Chairs and tent pins	2, 933 00	
HOSPITAL.		
Repair, &c., of prison hospital		155 00
MILITARY PRISON.		
Special appropriation	14, 450 34	31, 519 90

RECAPITULATION.

	On hand and received.	Transferred.	Expended.	Balance.
Regular supplies	\$39 00	\$39 00		
Incidental expenses	1, 225 00	245 00	\$980 00	
Army transportation	750 00	150 00	600 00	
Clothing, camp and garrison equipage	9, 065 00	3, 716 93	5, 348 07	
Hospital	155 00	155 00		
Military prison	31, 519 90	17, 069 56	14, 450 34	
Total	42, 753 90	21, 375 49	21, 378 41	

Respectfully submitted.

F. L. DODGE,

*First Lieut. Twenty-third Infantry, A. A. Q. M.,
for First Lieut. G. Lewis, Fifth Infantry, A. A. Q. M., retired.*

OFFICE OF THE ATTENDING SURGEON,
UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 25, 1879.

SIR: I have the honor to transmit herewith a tabular statement which exhibits in detail a list of diseases and injuries which have presented themselves for treatment during the year ending June 30, 1879. An examination of this list will show a total of 1,144, which is 73 more than the preceding year. The diseases of greatest prevalence, in the order of frequency, were intermittent fever, acute diarrhea, constipation, and rheumatism. Two deaths occurred of men belonging to the provost guard, and three deaths from among the prisoners; one of the latter, however, was not on the sick report, but died suddenly, while at work, from apoplexy.

Considerable improvement has been made during the past year in the culinary department of the prison: a much more capacious and convenient mess room has been constructed for the accommodation of prisoners; a new and well-appointed bakery has recently been completed, and large, well-ventilated shops have been completed, all of which cannot fail to contribute materially toward the health and well-being of the inmates of the prison.

I have no special remarks to make in reference to the food, clothing, or general hygienic arrangements of the prison. Every effort is made, that circumstances will admit, to secure in all respects the well-being of the prisoners, and I think with a reasonable degree of success.

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

J. P. WRIGHT,
Surgeon United States Army.

The GOVERNOR OF MILITARY PRISON.

UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 4, 1879.

SIR: In presenting to you my third annual report, I would take occasion first of all to congratulate you that we have at last a room prepared and set apart, suitable in every respect for the purpose of a chapel, and to thank you for your earnest and successful efforts in securing its erection. Prior to its occupation (on the first Sabbath of the present year) we were subjected to much inconvenience, and much discouragement also, on account of the frequent changes made in the place of worship, and especially because we were often compelled to hold our religious services in places entirely unfitted for such services. This had a tendency of course to depreciate their value in the estimation of the prisoners, and to lessen their interest in them. Now that a comfortable and attractive place of worship has been provided for them they realize that those in authority are not unmindful of their best interests, and the attendance has been perceptibly larger and more regular. The services have been regularly maintained during the year, with what result the great day of reckoning can only reveal. I have endeavored faithfully to preach the Gospel in its freeness, fullness, and adaptation to all the needs of humanity, and I cannot doubt that the seed thus sown, even though much may "fall by the wayside, or in stony ground, or among thorns," will, in some instances at least, "fall into good soil and bring forth fruit."

Besides the services of the Sabbath, I seek to make myself personally acquainted with the men, and to assure them of my readiness to serve them at all times, and in all matters which fall within my sphere of duty.

I have also regularly visited the hospital, and by sympathy and counsel have sought to lighten the burden of affliction, and to impress the heart with the importance of the Christian religion, as "the one thing needful."

I regret that, as yet, it has been found impracticable to establish a school. The difficulties that have hitherto stood in the way are not unappreciated, but I am glad to be assured that they will be speedily surmounted; so that, at no distant day, this important want of the institution will be supplied. This work, however, has not been entirely neglected. During the year, all who have made application have been furnished with such books as were needed to enable them to learn to read and write; and in this private and informal way, some have made commendable progress.

I would take occasion to express my thanks to the Rev. W. D. A. Matthews, of the Western Seaman's Friend Society (prison department), for two large sacks of reading matter, gratuitously furnished for the use of the prisoners.

In surveying my work from a merely human standpoint, there is often much to discourage. Well may the question be asked, "Who is sufficient for these things?" It

is no easy matter to undo the mistakes of a life, and to break up sinful habits, the growth of years; especially amid the surroundings of a prison, and he who would attempt the work in his own strength must fail. "Our sufficiency is of God," and our trust in His strength and gracious promises is our encouragement.

In conclusion, permit me to say that any suggestions from you, which will, in your judgment, enable me more efficiently to carry on my work, will always be kindly and thankfully received.

Very respectfully, your obedient servant,

A. D. MITCHELL,
Chaplain.

The GOVERNOR.

UNITED STATES MILITARY PRISON

Tabular list of diseases, &c., for

		Class 1.									
		Quotidian	Tertian	Acute	Erysipelas.	Mumps.	Tonsillitis.	Epidemic	Primary	Constitutional	Gonorrhoea.
		intermittent	intermittent	diarrhoea.				catarrh.	syphilis.	syphilis.	
		fever.	fever.								
July, 1878.....	Provost guard	4						1	1		
	White prisoners	38	3	24			1				
	Colored prisoners	2					1				
August, 1878	Provost guard	9									
	White prisoners	52	5	24							
	Colored prisoners	3									
September, 1878	Provost guard	1	8	3							
	White prisoners	20	13	8			1				
	Colored prisoners	1		1							
October, 1878	Provost guard		2			1				1	
	White prisoners	16	3				1				
	Colored prisoners		1								
November, 1878.. ..	Provost guard	5					2				1
	White prisoners	17	1				1				
	Colored prisoners		2								
December, 1878 ..	Provost guard	4	5								
	White prisoners	9	8				3				
	Colored prisoners	2	1								
January, 1879.....	Provost guard	6	3				3				
	White prisoners	6	8				6				
	Colored prisoners										
February, 1879... ..	Provost guard	4	3								
	White prisoners	3	29				4	1			
	Colored prisoners		2								
March, 1879.....	Provost guard	3	2				2				
	White prisoners	17	8				5				1
	Colored prisoners						1				
April, 1879.....	Provost guard	3	1	1							
	White prisoners	21	4	1			4				
	Colored prisoners	1		1							
May, 1879.....	Provost guard	6					1				
	White prisoners	30	4	1			1				1
	Colored prisoners		1								
June, 1879	Provost guard	3	2								
	White prisoners	24	29	1							
	Colored prisoners		1								
Total for the year.....		130	211	178	5	1	36	2	1	1	3

Tabular list of diseases,

		Class 4.									
		Colic.	Constipation.	Dyspepsia.	Gastric ulcer.	Fistula in ano.	Piles.	Inguinal hernia.	Acute inflammation of liver.	Jaundice.	Incontinence of urine.
July, 1878.....	Provost guard			1							
	White prisoners	22	3							3	
	Colored prisoners	3									
August, 1878.....	Provost guard	1									
	White prisoners	16	3		1	1				1	1
	Colored prisoners	1									
September, 1878..	Provost guard	1									
	White prisoners	5		1							
	Colored prisoners										
October, 1878.....	Provost guard										
	White prisoners	8									
	Colored prisoners										
November, 1878..	Provost guard		5								
	White prisoners		2								
	Colored prisoners										
December, 1878..	Provost guard	1	2								1
	White prisoners										
	Colored prisoners										
January, 1879....	Provost guard		2								
	White prisoners	1	4					1	1		
	Colored prisoners										
February, 1879..	Provost guard										
	White prisoners	2	5				1				1
	Colored prisoners										
March, 1879.....	Provost guard		4				1				
	White prisoners	1	15								1
	Colored prisoners										2
April, 1879.....	Provost guard										
	White prisoners		8					1			
	Colored prisoners										
May, 1879.....	Provost guard										
	White prisoners	2	8							1	
	Colored prisoners										
June, 1879.....	Provost guard		4	2		1		2			
	White prisoners		1								
	Colored prisoners										
Total for the year.....		7	117	9	1	2	4	4	1	5	6

§c.—Continued.

Class 4.					Class 5.											Not classified.			Total for the month.					
Retention of urine.	Anchylolosis.	Abscess.	Boil.	Ulcer.	Eczema.	Adenitis.	Intertrigo.	Burns and scalds.	Contusion.	Sprain.	Dislocation.	Frost-bite.	Simple fracture.	Compound fracture.	Gunshot wound.	Incised wound.	Lacerated wound.	Punctured wound.		Intercostal neuralgia.	Orethritis (not gonorrhoeal.)	Iritis.	Amaurosis.	
		1	2		1				2	1						2								11
																								118
		1	3		1				1	1						2								6
																								16
			1		1										1									125
					1																			5
					1																			18
					1											1								67
					1											1								5
									1															6
									1															41
					2				1															3
																								13
																								45
									5	2														5
									5															10
																								50
																								10
									1															20
									2	1														7
																								3
																								10
																								83
																								9
																								26
																								88
																								9
																								9
																								69
																								3
																								11
																								80
																								2
																								7
																								88
																								3
																								1,144
6	1	4	40	2	16	2	2	1	24	6	1	3	1	1	1	12	3	3	1	1	1	1	1	

RECAPITULATION.

	Provost guard.	White prisoners.	Colored prisoners.
Average monthly strength	78	327	19
Taken sick during the year	157	925	63
Returned to duty during the year	154	898	63
Discharged for disability		9	
Discharged by order		1	
Died*	2	2	
Remaining sick June 30, 1879	1	15	

* One white prisoner died of apoplexy, not on sick-report.

Respectfully submitted.

J. P. WRIGHT
Surgeon United States Army.

Annual report of alterations in prisoners and prison labor performed at the United States Military Prison, Fort Leavenworth, Kans., during the year ending June 30, 1879.

ALTERATIONS.

Date.	Aggregate.	Aggregate last report.	Gain.			Loss.				Memoranda.		Recapitulation.	
			By transfer.	From escape.	Aggregate.	Discharged.	Transferred to penitentiary.	Died.	Escaped.	Aggregate.	Mitigated.		Remitted.
July 31, 1878	405	412	45		45	21	1		1	23	15	3	
August 31, 1878	383	394	3	3	6	22			6	28	13	3	In prison June 30, 1878
September 30, 1878	369	385	21	2	23	33			4	37	11	3	Received since
October 31, 1878	355	385	16		16	30				30	7	2	
November 30, 1878	353	372	18		18	19			1	20	7		Total
December 31, 1878	324	371	8		8	37				37		2	631
January 31, 1879	336	369	32	1	33	20		1		21	9	1	Discharged
February 28, 1879	324	362	16		16	28				28	6	1	Transferred
March 31, 1879	331	380	31		31	24				24	9		Died
April 30, 1879	313	372	6		6	22		1	1	24	6	1	Escaped
May 31, 1879	317	391	30	1	31	25			2	27	8	4	Total
June 30, 1879	311	383	15		15	20	1			21	10	5	320
Total during the year			241	7	248	301	2	2	15	320	101	25	Remaining in prison June 30, 1879
													311

PRISON LABOR PERFORMED.

Date.	For depot quarter- master.	In prison-yard.		In shoe- shop.	Outside prison-yard.			Total number days' labor.		Aggregate number of days labor performed during the month.	Remarks.	
	Laborers.	Mechanics.	Laborers.	Mechanics.	Quarry.	Prison walls, &c.		Mechanics.	Laborers.			
		No. of days.	No. of days.	No. of days.		No. of days.	No. of days.					No. of days.
July 31, 1878	1,272	1,169	2,849	1,335	874	250	2,376	2,754	7,371	10,125	Average number of pris- oners employed daily throughout the year, 304 working days: mechan- ics, 95; laborers, 249.	
August 31, 1878	1,145	1,194	2,690	1,376	1,063	179	2,259	2,749	7,157	9,906		
September 30, 1878	814	1,040	2,694	1,335	778	118	2,451	2,493	6,797	9,230		
October 31, 1878	756	1,199	3,191	1,438	742	53	3,343	2,690	8,032	10,722		
November 30, 1878	1,158	1,193	2,936	1,332	495	52	1,674	2,577	6,263	8,840		
December 31, 1878	1,688	1,182	2,957	1,337	307	3	1,126	2,522	6,078	8,600		
January 31, 1879	1,472	1,101	2,935	1,438	341	3	629	2,542	5,377	7,919		
February 28, 1879	840	1,030	2,796	1,343	547	-----	1,044	2,373	5,227	7,600		
March 31, 1879	662	1,004	3,081	1,439	938	-----	1,212	2,443	5,923	8,366		
April 30, 1879	561	914	3,605	1,389	291	-----	1,209	2,303	5,696	7,999		
May 31, 1879	558	812	3,315	1,394	404	-----	1,358	2,206	5,615	7,821		
June 30, 1879	868	731	3,459	430	592	-----	1,267	1,161	6,151	7,312		
Total during year..	11,799	12,569	36,508	15,586	7,372	658	19,948	28,813	75,627	104,440		

UNITED STATES MILITARY PRISON,
Fort Leavenworth, Kans., July 1, 1879.

A. P. BLUNT,
Brevet Colonel United States Army, Governor.

Statement of unpaid labor performed by United States Military Prison, Fort Leavenworth, Kans., for the Quartermaster's Department, United States Army, with estimated cost of same, during the fiscal year ending June 30, 1879.

	Labor performed for depot quartermaster, at 20 cents per day.							Prison shoe-shop, 30 cents per day.	Carpenters, 30 cents per day.		Manufacture of tent-pins, barrack chairs, packing-boxes, crates, &c.							
	Policing at department headquarters.	General work, store-house.	On roads.	At saw-mill.	Cutting ice.	Unloading stores.	Crushing rock.		Making chairs.	Making tent-pins.	Boxes for shoes, 50 cents each.	Boxes for chairs, 15 cents each.	Boxes for tent-pins, 25 cents each.	Boxes for Twenty-third Infantry, \$2 each.	Tent-pins, 2½ cents each.	Barrack chairs, \$1 each	Record cases for department headquarters, 30 cents per day.	Boxes for Inspector General's office, 80 cents per day.
	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.							Days.	Days.	
1878 and 1879.																		
July, 1878	602	534	505	246														
August, 1878	602	534	386	225														
September, 1878	512	527	113	174														
October, 1878	326	564	60	132														
November, 1878	579	514	356	288														
December, 1878	593	314	139	144	1,091						172	1,095						
January, 1879	345	228		312	855	77		1,264	114			88						
February, 1879	347	481		168	855	47	144	1,179	392	252		100			1,429			
March, 1879	270	552		84			56	1,279	139			179	56	22,000		33	7	
April, 1879	268	543		48				1,193				114	44					
May, 1879	278	538						1,252										
June, 1879	215	549	284					320										
Totals	4,937	5,878	1,843	1,821	1,946	124	200	6,487	645	60	540	1,742	100	5	22,000	1,429	33	7

Cost of labor indicated above is estimated as follows, viz :

16,749 days' labor for depot quartermaster, at 20 cents per day...	\$3,349 80	
6,487 days' labor by mechanics in prison shoe-shop, at 30 cents per day	1,946 10	
705 days' labor by mechanics in prison carpenter-shop, at 30 cents per day	211 50	
	<hr/>	\$5,507 40
Manufacture of packing-boxes for shoes, 540, at 50 cents each....	270 00	
Manufacture of packing-boxes for chairs, 1,742, at 15 cents each.	261 30	
Manufacture of packing-boxes for tent-pins, 100, at 25 cents each.	25 00	
Manufacture of packing-boxes for Twenty-third Infantry, 5, at \$2 each	10 00	
Manufacture of barrack chairs, 1,429, at \$1 each.....	1,429 00	
Manufacture of tent-pins, 22,000, at 2¼ cents each.....	495 00	
Manufacture of record-cases for department headquarters, 33 days, at 30 cents per day	9 90	
Manufacture of boxes for Inspector-General's office, 7 days, at 30 cents per day.....	2 10	
	<hr/>	2,502 30
Total		8,009 70

A. P. BLUNT,
Brevet Colonel, U. S. A., Governor.

UNITED STATES MILITARY PRISON,

Fort Leavenworth, Kans., June 30, 1879.

PUBLICATION OF WAR RECORDS.

REGISTRATION OF WAR RECORDS

REPORT
OF
PUBLICATION OF WAR RECORDS.

WAR DEPARTMENT,
Washington City, September 1, 1879.

SIR: The preparation for the publication of the official records of the war of the rebellion has steadily progressed since the date of my last report, but the amount of labor involved in examining the mass of records stored in this city, in making judicious selections from them, and in the verification of the copies made, can hardly be appreciated by those not immediately connected with the War Department.

The records of the Union armies are very complete. They have been thoroughly examined for the years 1861 and 1862, and in part for the later years of the war. The Confederate records are yet very incomplete; they are kept in insufficient space, and have never been so indexed or catalogued that they could be systematically examined. A catalogue is now being made.

The War Department agent for the collection of Confederate records (General Marcus J. Wright) has been successful in the discharge of his duties. By gift or loan, many very valuable documents have been placed at the disposal of the government. The Southern Historical Society has given us free use of its important collection. Through the courtesy of Generals Johnston and Pemberton, we have now the inside history of the siege of Vicksburg, and the Confederate side of the campaigns of Atlanta and of the Carolinas. Generals Wheeler, Jones, and Ruggles, among others, have also placed valuable papers at our disposal. In fact a general disposition is manifested among the ex-Confederate soldiers to contribute material for the official history of the war.

There are three or four collections of "Confederate Records" held for sale, but I respectfully renew my objections to that method of procuring such property. It is submitted that there is no propriety in such purchases. That, strictly speaking, some of the records belong to the government, and that the fact that the government has refrained from seizing them, ought to induce the present holders to permit the authorities to make use of them. Moreover, the price of such things is purely arbitrary. The government stands ready to publish to the world every duly authenticated document of historical value, and documents thus published must carry greater weight than those appearing without such guarantee of genuineness. If the existing rule of making no purchases be adhered to, I believe that public sentiment will force every important Confederate document into the hands of the government.

At my urgent solicitation an ex-Confederate officer has been employed as one of the clerks in my office. The necessity for having some one familiar with the *personnel* of the Confederate armies has long been apparent, but the appropriations have not justified the employment of additional clerks until now. The gentleman selected is specially qual-

ified, and was vouched for by distinguished men of both the great political parties.

As yet Congress has made no provision for the publication of any of the records. In my judgment some such publication is now desirable. A publication of the official records of the war of the rebellion for the period ending December 31, 1861, can be made in eight octavo volumes of, excluding maps, eight hundred pages each, and the cost of composition and stereotyping, if the work is done at the Government Printing Office, would not exceed \$9,000. The further cost of the publication would, of course, depend upon the number of copies printed, the quality of the paper, and the style of binding. No estimate is made for the publication of maps, because they should be prepared and published under the direction of the Chief of Engineers, and should form a separate series. It is suggested that any money appropriated for this purpose be made available till the work is actually completed.

I beg to invite your attention to so much of my report of September 30 last as refers to the manner in which the war records should be published, and, with all deference, I respectfully urge that a publication of the formal reports of military operations, segregated from the correspondence, orders, returns, &c., immediately connected therewith, would, while it simplified the labor of the compiler, prove a most unsatisfactory arrangement of the matter to be published. The arrangement that I propose would record every military event, not only as an isolated fact, but as an incident of the campaign to which it belonged, in chronological order; would give the correspondence, &c., immediately connected with such military events therewith; and would, as far as possible, give both the Union and Confederate versions of any event or controversy in the same volume.

I desire especially to invite your attention to the question of extra compensation to Messrs. Kirkley and Tasker, of the Adjutant-General's Office, whose special services in connection with the war records have before been brought to your attention. Their assistance in my work is extra duty to them and most valuable to my office. It obviates the necessity for another clerk in my establishment, and there seems to be good reason for some substantial recognition of it.

The force now employed in my office is as follows:

CLERKS.	
Class IV	2
Class III	1
Class II	1
Class I	1
Class \$1,000	2
Copyists	12

PRINTING OFFICE.	
Foreman	1
Pressman	1
Compositors	6
Assistant messengers	2
Watchman	1
Agent	1
Total	31

Very respectfully, your obedient servant,

ROBERT N. SCOTT,
Brevet Lieutenant-Colonel, U. S. Army.

The SECRETARY OF WAR.